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Public Utilities

FORTNIGHTLY

Volume 54 No. 6 September 16, 1954

EFFICIENCY *VERSUS* EARNINGS IN THE ELECTRIC INDUSTRY
By C. P. Guercken

« »

What Does the New Atomic Energy Law Mean?
By Thomas P. Swift

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The Utility Challenge to Saboteurs
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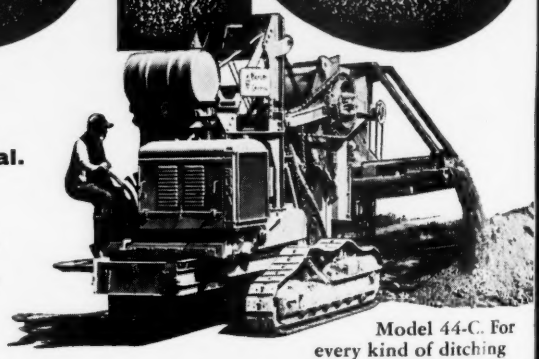

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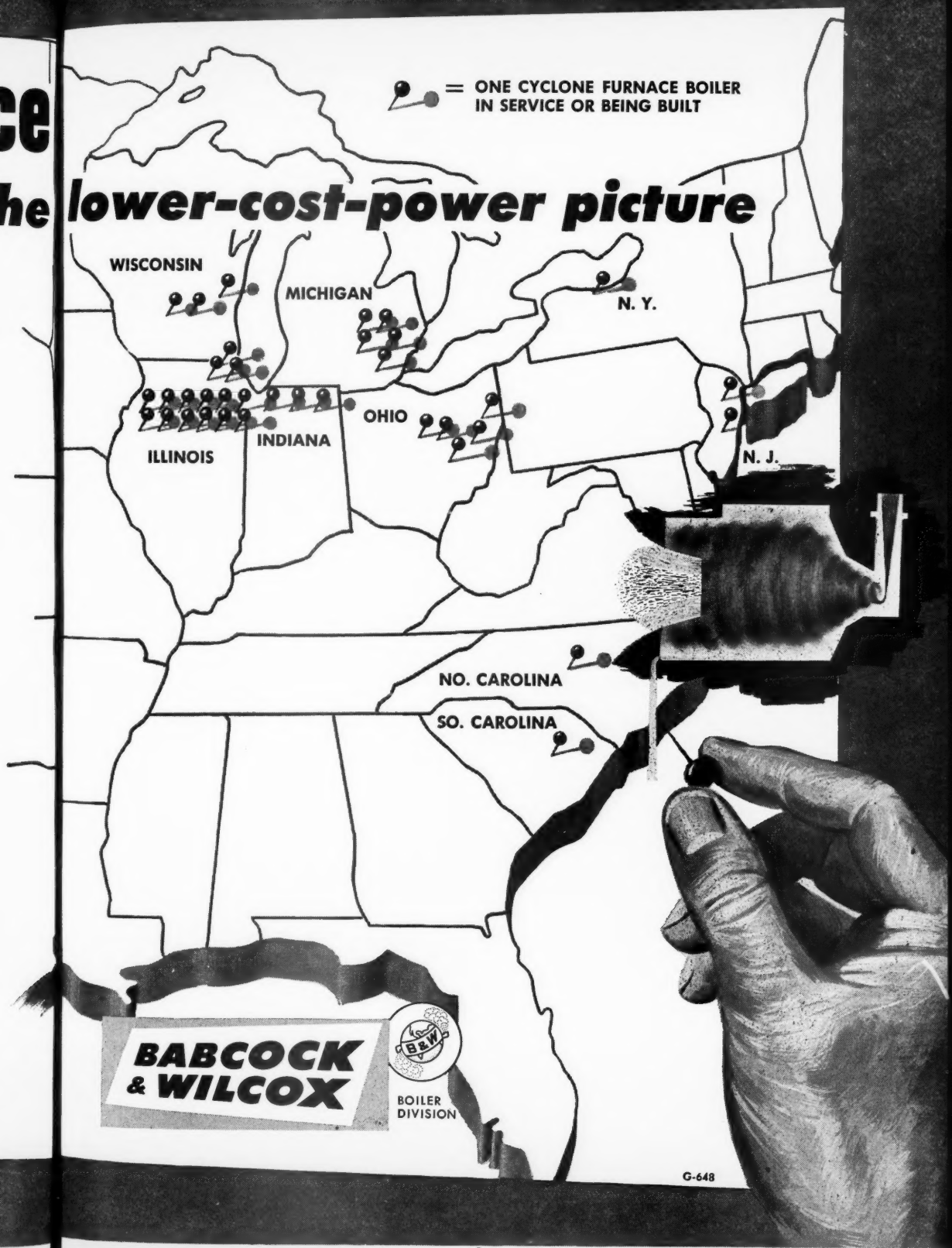
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Pages with the Editors

RECORDS of Congress and the Budget Bureau show that even before the President made his State of the Union message on getting a private source of power for the Atomic Energy Commission, via the Tennessee Valley Authority, the Budget Director was negotiating with private utility companies. These negotiations led to the so-called Dixon-Yates contract under which AEC will buy 600,000 kilowatts of electricity for the Tennessee Valley Authority from a new plant to be built by a private power syndicate at West Memphis, Arkansas.

THIS is the power syndicate in which the famous Georgia golfer-lawyer, Bobby Jones, is interested, because he is a director of one of the two holding companies comprising the syndicate. Mr. Jones' business relation with the company was mentioned in an article printed in most newspapers months ago when all the officials and major stockholders of the syndicate were named.

BUT it was not until Democratic National Committee Chairman Stephen A. Mitchell charged a "scandal" in connection with the contract that this fact hit the front pages. The President defended Mr. Jones, as some leading Democrats have also done. This is enough to show the politically explosive character of this controversy, which at times threatened to wreck passage of the recently enacted atomic energy law.

ARGUMENT over the Dixon-Yates contract was, on a limited scale, a sort of reenactment of the whole basic conflict which was boiling beneath the attempts of the administration to end federal government monopoly in the field of atomic energy for peacetime purposes. Following his previously announced policy of encouraging private enterprise, President Eisenhower has lent his aid and assistance to the containment of government activities in the electric power business field.

C. P. GUERCKEN

BUT the public power advocates, keen on expanding a program which has been rapidly expanding for the last two decades, wanted no such legislation. To them it amounted to turning back the clock. They denied that the steady policy of government expansion in the public power field is a drift towards Socialism, although some disinterested observers cannot see what else to call it even though it be of relatively limited proportions.

THE Dixon-Yates contract, involving as it did the old favorite political whipping boys of the left-wing Democrats —the electric utility companies—seemed like a good target to use for blowing the whole program to pieces. And it must be admitted that the political guns on the left have been blasting away at this target ever since.

OF course, whether the Dixon-Yates group provided the power or whether TVA will be permitted to build its own plants to provide the necessary power, will not of itself finally decide the fundamental question. The real question is whether the federal government or private industry is going to take over the atomic energy business, when the smoke of political battle clears away.

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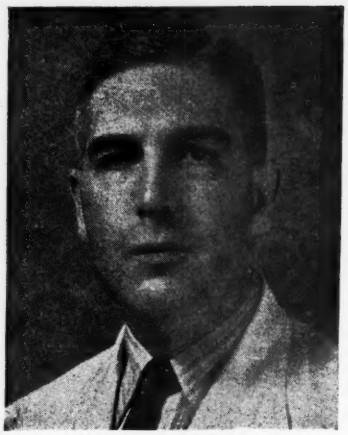
THAT is the broad basis upon which the article in this issue by THOMAS P. SWIFT, for the past twenty years, utility news reporter for *The New York Times,* analyzes the new atomic energy law. It may well be, as some commentators have said of it, that this law will prove to be the most important enactment of the Eisenhower administration or the 83rd Congress.

THE fact that Congress has enacted a law which seems to open the door to private enterprise and has surrounded government action with some barriers of statutory limitations does not necessarily decide the question either. Future administrations and future members of the AEC will have the responsibility of interpreting this law and its various provisions. If the AEC, ten years or so from now, is determined or inspired by the future occupant of the White House to get into the business and throw private enterprise out as far as atomic energy is concerned, government lawyers are remarkably adept at skipping around statutory limitations in such a way as to make white seem black and black seem white.

* * * *

ONE of the oldest and most challenging problems in the field of public utility regulation is that of recognizing efficiency of management in the fulfillment of its public service obligation. For the regulatory commissions, the problem has been one of policy—the determination of an incentive which would encourage efficient performance and discourage mediocre or poor performance. For management, however, there is the even more puzzling problem of reconciling revenue requirements with the standards of efficient operation. The statistical relationship between efficiency and earnings is thus one of fundamental interest to both management and regulators. C. P. GUERCKEN, assistant to vice president, Ebasco Services Incorporated, has done a masterful job of demonstrating this relationship. It is accompanied with a complete and graphic set of illustrative charts.

MR. GUERCKEN was graduated in 1931 from New York University with a BS in electrical engineering. After studying economics, accounting, and finance at the London School of Economics, he stayed on in England and joined Edmundson's Electricity Corporation, then a subsidiary of Utilities Power & Light Company of Chicago. In 1937 he became associated with The County of London Electric Supply Company as assistant to the general manager. Returning home in 1940, he joined Ebasco Services Incorporated as budget sponsor. His present position is assistant to the financial vice president.



T. N. SANDIFER

* * * *

ANOTHER important law passed by the recently adjourned session of the 83rd Congress was the Defense Facilities Protection Act of 1954. The purpose of this measure was to authorize the federal government to guard strategic defense facilities against acts of sabotage, espionage, or other forms or acts of subversion. Among other provisions was some language suggested by Attorney General Brownell to insure the safety and uninterrupted operation of public utilities in war or in any national emergency. Even the concept of what constitutes a "utility" was expanded. T. N. SANDIFER, Washington congressional correspondent, has written an analysis of the provisions of this legislation as they affect operating utilities.

THE next number of this magazine will be out September 30th.

The Editors

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WHAT'S HAPPENING TO TRANSIT?

The past twelve months have been referred to by some transit service operators as "the year of the great awakening." It has been a year when the transit industry has placed its cards squarely on the table with the public. Laurence Wingerter, president of the American Transit Association, has written a comprehensive and thoughtful statement about economic and regulatory developments in the transit industry over the past year. Faced with a decline in patronage, the industry is left with no alternative but to impress upon the public the fact that passengers will eventually have to write their own ticket as to whether they want adequate service and are willing to pay for it.

A BUSINESSLIKE CURE FOR RUSH-HOUR CRAMPS

George W. Keith, business writer of Cincinnati, has conducted an "off-the-cuff" interview with operators of privately owned off-street parking facilities. The purpose is to determine the prevailing view on the ability of private enterprise to handle the parking of private automobiles with the incidental benefit of increased efficiency and more economical transit operation. With government and business each functioning in their own spheres, it is believed that venture capital can be found to finance the solution of traffic congestion and parking difficulties.

NATIONAL ASPECTS OF TRANSIT'S PUBLIC RELATIONS

The economic problems of the transit industry since the end of the war have spread some public confusion and misunderstanding concerning those who are still trying to operate on the traditional basis of free enterprise in public service. Inexperienced people have been attracted by mythical opportunities for quick turnover and private gain. Some local authorities have become complacent with the thought that mass transit is indispensable and can be substituted by private automobiles. John J. Hassett, Washington author of business articles and public relations counselor, has explored these dangerous trends and the need of better public relations to offset them in the harassed transit industry.

ADDRESSES ON UTILITY PROBLEMS BEFORE THE AMERICAN BAR ASSOCIATION—APPENDIX

Not only legal, but economic and financial problems of operating public utilities engaged the attention of the Section of Public Utility Law of the American Bar Association. This appendix contains the reporting of the various addresses given at the sessions of the annual meeting of the Section of Public Utility Law during the American Bar Association convention at The Blackstone Hotel in Chicago, Illinois, August 16th, 17th, and 18th.

★

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EDITORIAL STATEMENT
The New York Times.

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President, Chamber of Commerce of the United States.

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M. S. RUKEYSER
Columnist, New York Journal-American.

"No voice of business is authentic unless it is dynamic and dramatic. Undue conservatism, dictated by unimaginative accountants and stolid lawyers, distorts public understanding, for it conceals the essential progressiveness of a system based on utilization of creative minds in science, invention, and engineering."

CHARLES E. WILSON
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A. D. MARSHALL
Manager, employee benefits services department, General Electric Company.

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THRUMAN SENSING
Member, Southern States Industrial Council.

"If the TVA is good for the Tennessee valley area, then similar operations would be good for all the rest of the United States. And if public power is good for the people of the United States, then public railroads and coal mines and steel mills and grocery stores and newspapers and all other forms of business enterprise would also be good for the people of the United States."

RICHARD L. BOWDITCH
Chairman of the board, Chamber of Commerce of the United States.

"This nation was conceived and rose to world leadership on the ideas of nonconformists and freewheelers, of men and women of integrity and wide vision, of individuals with bold, far-reaching minds, who insisted on crossing the frontiers of the unknown. They dared to disagree on many things, but our country and our culture are infinitely richer and stronger for their challenge."

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August 25, 1954.

REMARKABLE REMARKS—(*Continued*)

WILLIAM RANDOLPH HEARST
Late publisher.

"States' rights mean co-operation in government but not compulsion by government."

GRAYSON KIRK
President, Columbia University.

"Loyalty does consist in agreement that such improvement be brought about after open discussion and by democratic processes."

DWIGHT D. EISENHOWER
President of the United States.

"We will accept nothing over and above freedom. And as long as we live that—and believe in it—and do our work in that spirit, to my mind, America is not only safe but America is going forward in the expanding and growing economy that will bring greater and greater happiness to our people, security for us, and promote peace in the world."

SHERMAN R. KNAPP
President, The Connecticut Light & Power Company.

"If we will devote to 'selling for the future market' the same care for costs we devote to the manufacturing of electric power, we will be able to compete successfully in the total market for that grand prize we all seek—the satisfied customer. The people on the far side of the meters whose educated desires make the hands go 'round. The kind of people whose attitude adds up to — and makes possible—the future."

MARCUS NADLER
Consulting economist, The Hanover Bank.

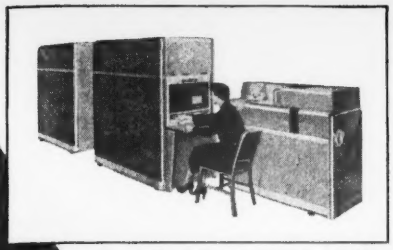
"The rôle of government in influencing business conditions is of particular importance now with the economy in a downward readjustment and making a transition from war to peacetime conditions. The realization by both industry and consumers that the government is keenly interested in business developments and has vast powers to influence their course has greatly contributed to the orderly transition from a war to a peace economy."

Excerpt from The Guaranty Survey, published by Guaranty Trust Company of New York.

"The tax on dividends has been a subject of complaint for eighteen years. Until 1936 dividend income was exempted from the individual income tax on the ground that such income had already been taxed in the form of corporation earnings. Since that time, dividend income has been taxed twice—once to the corporation and once to the receiving stockholder. The important point, however, is not that it is a double tax but that it is a discriminatory tax. The corporate stockholder, as an individual and as a partial owner of the corporation, pays more than his share."

JOHN W. BRICKER
U. S. Senator from Ohio.

"Nothing is more difficult and more essential than that business subordinate artificial competitive advantages to the welfare of the entire industry and the general public. This is particularly true in transportation. Archaic regulation and unsound promotional activities have naturally created powerful vested interests. Too many beneficiaries of government favoritism and subsidy tend to think in terms of 'after me, the deluge.' The far-sighted transportation executive, on the other hand, knows that threats to other segments of the industry are of vital concern to him. In recommending legislation to the Congress, he should have uppermost in his mind the principle 'united we stand, divided we fall.'"



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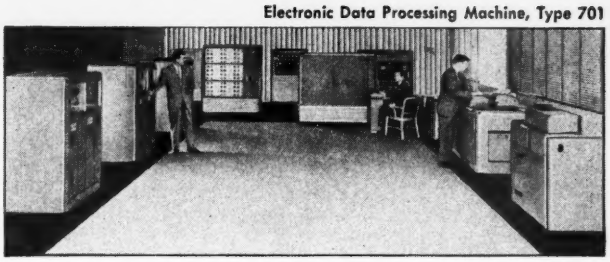
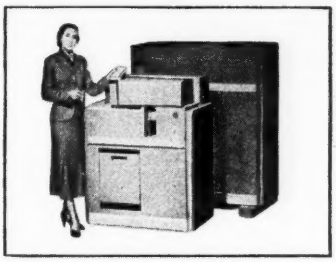
Electronic Data Processing Machine, Type 701





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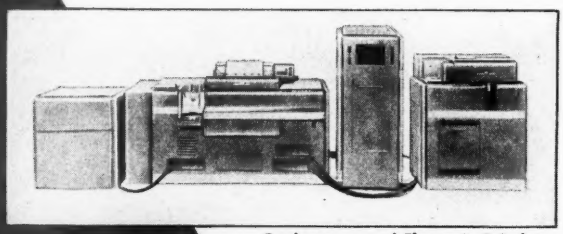

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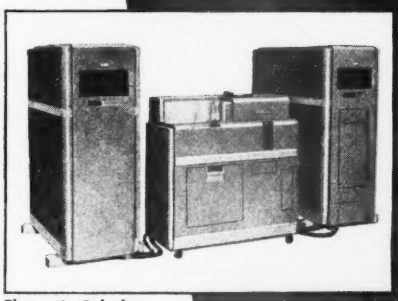
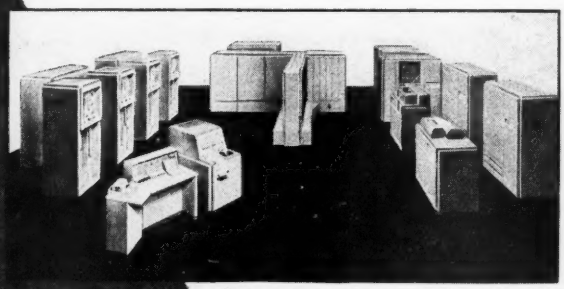


Electronic Calculator, Type 607



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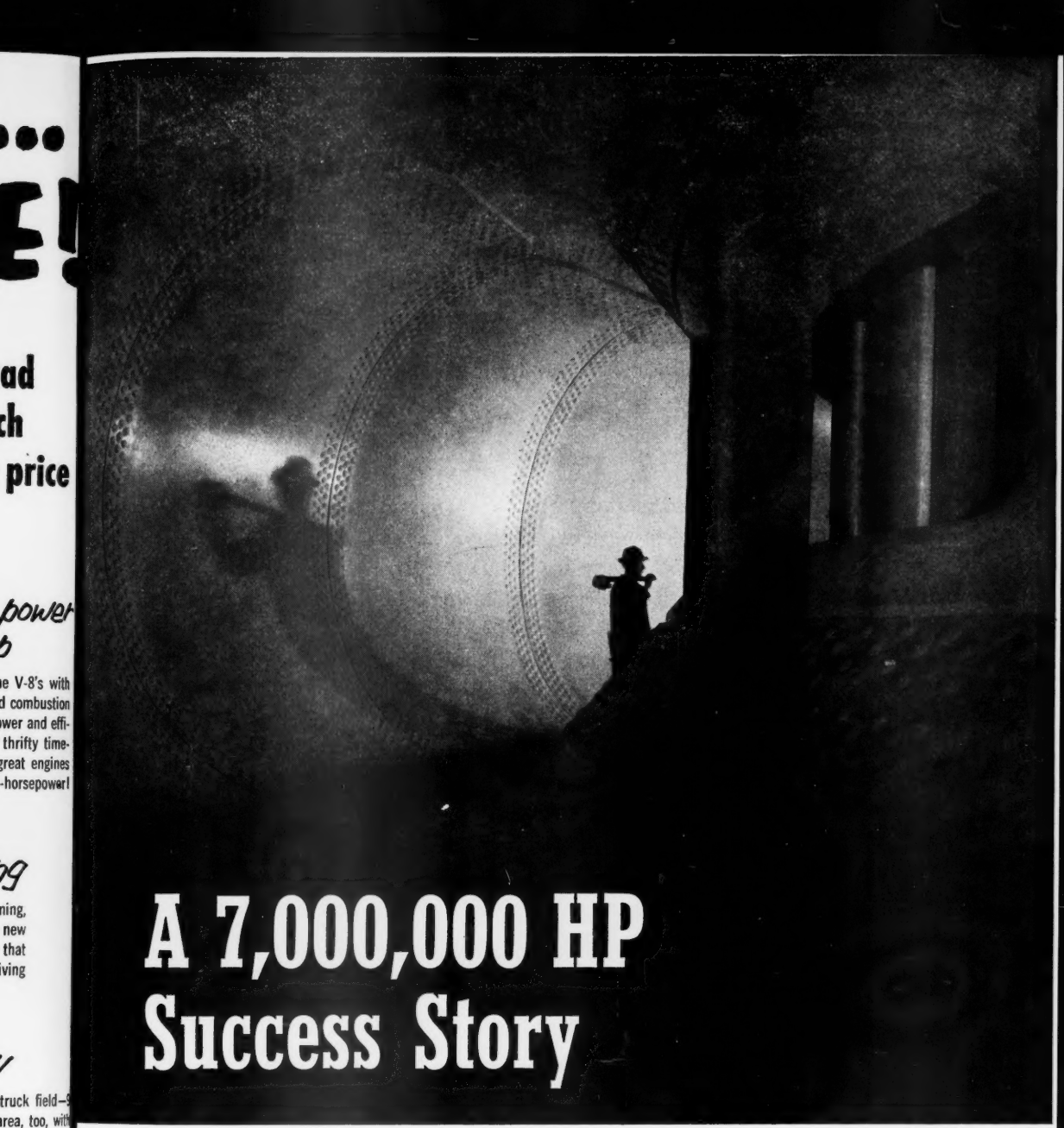

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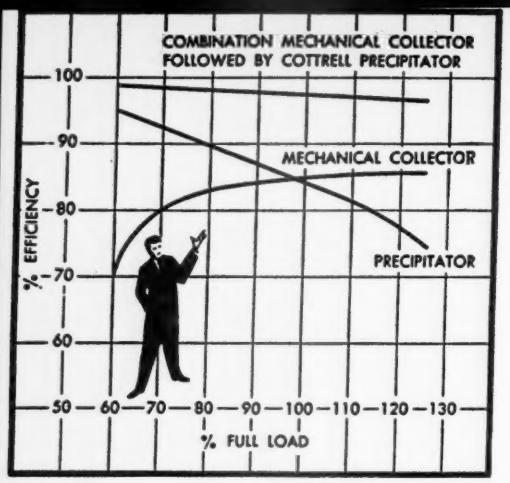

Advantages of the Western Precipitation

CMP Unit

for recovering solids from stack gases in public utility operations

The control and recovery of fly ash from stack gases has always been a troublesome problem in public utility operations. With the development of the CMP unit by Western Precipitation Corporation, new economy and efficiency in the solution of fly ash problems are now possible.

Almost a half century ago Western Precipitation pioneered the first commercial application of the now-famous Cottrell Electrical Precipitator to recover suspensions *electrically*, and this equipment is still unsurpassed in its field.

Subsequently, to provide efficient fly ash recovery for low cost installations, Western Precipitation also pioneered the first small tube *mechanical* recovery unit — the Multiclone Collector — and this unit promptly gained widespread recognition for the new efficiencies it brought to mechanical recovery processes.

Combination Multiclone-Precipitator Unit. From these years of experience gained in both Cottrell and Multiclone installations, Western Precipitation recently offered another new development — the CMP Unit — a unit that combines in one compact installation many of the best features of both electrical and mechanical recovery methods.

In a typical CMP Unit, the stack gases first pass through a Multiclone section where the heavier materials are removed *mechanically*.

The partially-cleaned gases then pass through a Cottrell section where the very small particles are removed *electrically*.

This arrangement offers several advantages important to public utilities. Removing the heavier particles by the Multiclone process permits the bulk of the recovery operation to be performed with relatively low-cost equipment. Using a Cottrell for the final clean-up insures unusually high recovery efficiency — approaching theoretically perfect, if desired. Thus, the CMP combines high recovery efficiency with low total cost . . . and, as shown in the chart above, has the further advantage that the efficiency curve of the Multiclone portion complements that of the Cottrell portion — *therefore the overall CMP efficiency remains practically uniform at all boiler loads.*

> **At low boiler loads the recovery efficiency of the Cottrell is highest, while that of the Multiclone reaches its maximum at high boiler loads. But, by combining the two types of equipment into a *single* CMP unit, the efficiency curve remains almost flat whether the boiler load is low or high.**

With CMP equipment, even small utility companies can now afford adequate fly ash recovery. However, it is important to remember that full benefit of the CMP principle can be obtained only by a proper balance between the mechanical and electrical sections to fit the individual requirements of *each individual* installation. And no organization is better equipped to provide this critical "know-how" than the organization that provides integrated responsibility for Cottrell, Multiclone and CMP methods . . . *the Western Precipitation Corporation.*

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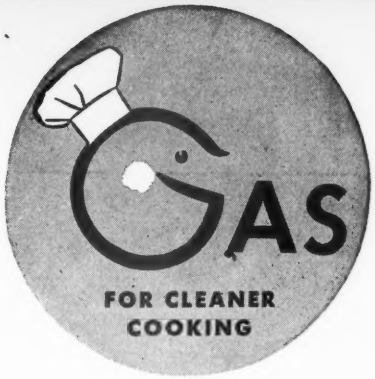

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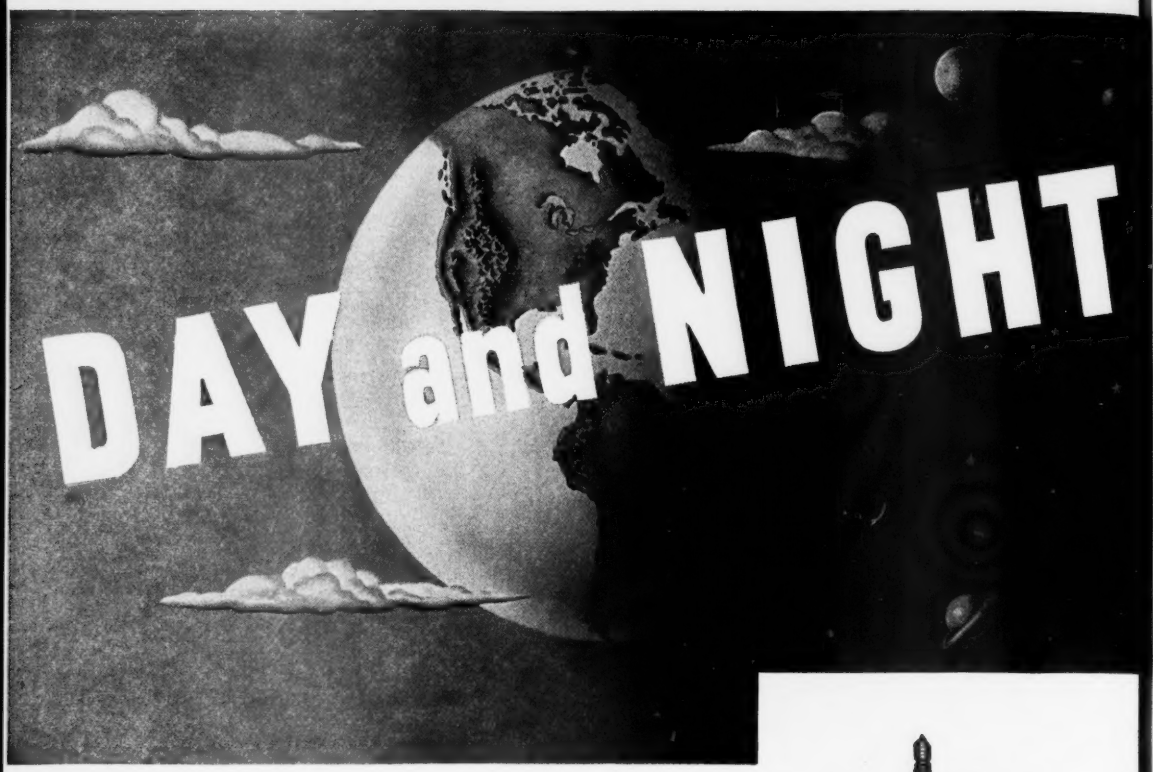

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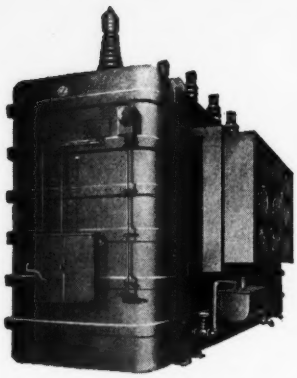

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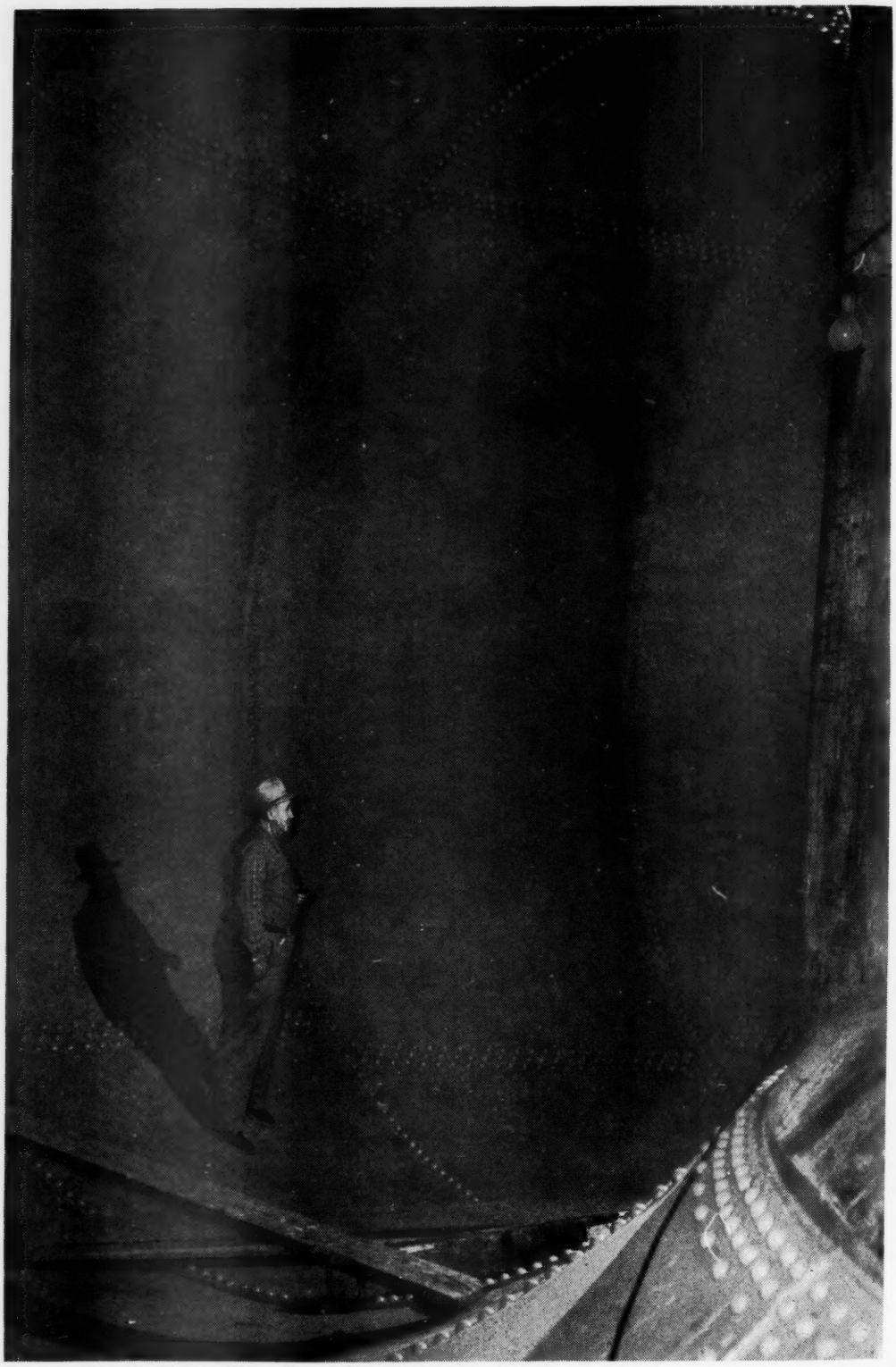
Thursday—16 *Public Utilities Association of the Virginias begins annual meeting, White Sulphur Springs, W. Va.*	**Friday—17** *Rocky Mountain Telephone Association ends annual convention, Salt Lake City, Utah.*	**Saturday—18** *Maryland Utilities Association ends fall conference, Virginia Beach, Va.*	**Sunday—19** *American Gas Association will hold annual convention, Atlantic City, N. J. Oct. 11-13.* ***Advance notice.***
Monday—20 *Arkansas Telephone Association begins annual convention, Hot Springs, Ark.*	**Tuesday—21** *Edison Electric Institute, Accident Prevention Committee, ends meeting, Philadelphia, Pa.*	**Wednesday—22** *American Water Works Association, Ohio Section, begins annual meeting, Dayton, Ohio.*	**Thursday—23** *Southeastern Electric Exchange, Engineering and Operation Section, begins meeting, Birmingham, Ala.*
Friday—24 *Oklahoma Utilities Association begins gas division meeting, Oklahoma City, Okla.*	**Saturday—25** *United States Independent Telephone Association will hold annual convention, Chicago, Ill. Oct. 11-13.* ***Advance notice.***	**Sunday—26** *American Water Works Association, Missouri Section, begins annual meeting, Jefferson City, Mo.*	**Monday—27** *American Transit Association begins annual meeting, Pittsburgh, Pa.*
Tuesday—28 *Texas Mid-Continent Oil and Gas Association begins meeting, Dallas, Tex.*	**Wednesday—29** *International Association of Electrical Leagues begins annual conference, Philadelphia, Pa.*	**Thursday—30** *Southern Gas Association begins transmission management conference, Houston, Tex.*	**October** **Friday—1** *Michigan Association of Broadcasters ends conference, St. Clair, Minn.*



Courtesy, The Washington Water Power Company

Inside a Hydro Penstock

Public Utilities
FORTNIGHTLY

VOL. 54, NO. 6 SEPTEMBER 16, 1954

Efficiency *versus* Earnings in The Electric Industry

One of the oldest and most challenging problems in the field of public utility regulation is that of recognizing efficiency of management in the fulfillment of its public service obligation. The statistical relationship between efficiency and earnings is thus one of fundamental interest to both management and regulators. This article demonstrates this relationship with the help of a graphic set of illustrative charts.

BY C. P. GUERCKEN*

THE history of the electric utility industry is a record of technological progress and achievement in which management has been the principal architect and the customer the chief beneficiary. In spite of the tremendous pressure of inflation, which has affected the price of almost all goods and services, the electric utility industry appears to be the one exception to this rule. Even in terms of current dollars the price per unit has shown substantial declines while in terms of constant 1939 dollars the customer has received a windfall of unparalleled proportions. The following comparison will illustrate this point with respect to residential customers:

	Revenues	*KWH*	*¢/KWH*
1939	$35.88	897	4.00
1952	60.08	2,169	2.77
1952[1]	31.50	2,169	1.45

*Assistant to vice president, Ebasco Services Incorporated, New York, New York. For additional personal note, see "Pages with the Editors."

In other words, the residential customer, having increased his use 2.4 times, had a bill which was $4.38 less than the 1939 amount while the unit price had declined 63.8 per cent during the period.

At the other end of the scale, a customer in the large light and power classification had equally tangible benefits bestowed on him. For example:

	Revenues	*KWH*	*¢/KWH*
1939	$3,110	277,000	1.12
1952	6,580	652,000	1.01
1952[1]	3,460	652,000	.53

While the per cent decline in the price per kilowatt-hour was less than in the case of the residential customer because of the greater application of fuel adjustment clauses, as well as some small upward rate adjustments, the fact remains that even in terms of current (or depreciated) dollars the average large industrial user paid 10 per cent less per kilowatt-hour in 1952 than he did in 1939, while in terms of constant 1939 dollars his cost per kilowatt-hour amounted to a fraction over half a cent, or a decline of 52.5 per cent from the 1939 level. During this period the net income (in constant dollars) of manufacturers increased from $2.958 billion to $5.150 billion, or an increase of 74 per cent, while the consumer price index rose from 100 in 1939 to 190.9 in 1952.

THE regulatory restraints and the resultant artificialities of pricing policies have, to a degree, been reflected in the relative immobility of utility earnings and dividends as compared to their industrial counterparts. On Chart A (page 295) are shown the earnings and dividends per share from 1937 through 1952 of Moody's 24 utilities compared to the earnings and dividends per share of 125 industrial corporations.

On Chart B are shown the same relationships in terms of constant 1939 dollars, while on Chart C these data are plotted in index form with 1939=100. (See page 295.)

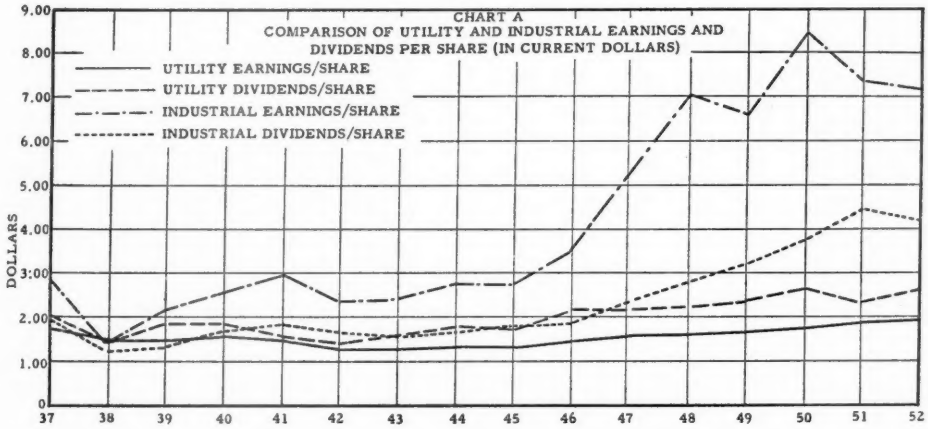
Both dividends and earnings indicate that the utility industry has suffered severe losses in terms of constant 1939 dollar purchasing power. Thus, while utility dividends and earnings declined 32.4 per cent and 24.7 per cent, respectively, from the 1939 level, the equivalent industrial equities more than made up the devaluation of the dollar by rising 67.9 per cent and 73.3 per cent, respectively, over the 1939 average. The same condition is apparent in the stock market appraisal of utility and industrial security prices. Based on a constant 1939 dollar of purchasing power, utility securities as represented by Moody's 24 companies declined 33.7 per cent from 1939 to 1952, while the 125 industrial equities rose 16.1 per cent during this period.

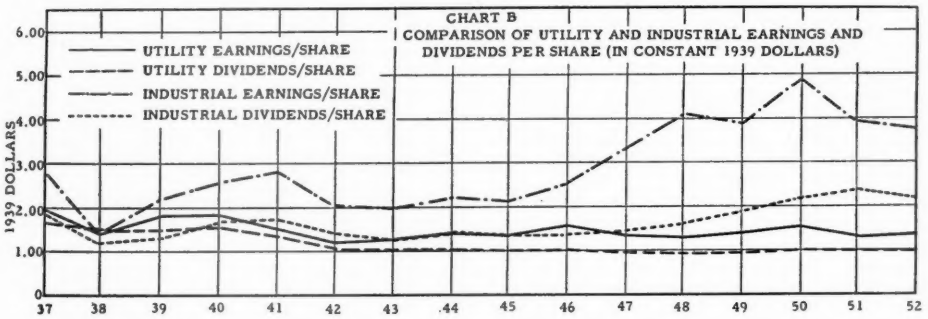
While it is not suggested that utility earnings and dividends should have the same ability to counteract inflation, it is believed that the present disparity should be corrected. The record of the utility industry for efficiency is such that an upward adjustment of earnings is justified both in equity and in law. It is the purpose of this analysis to consider the arguments which lead to this conclusion.

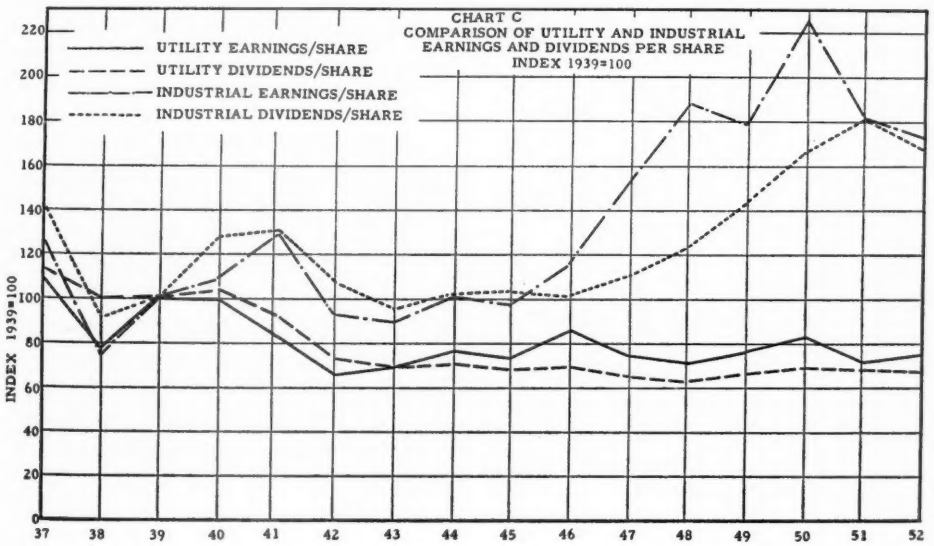
AN examination of the major unit cost components of electric utility operations based on current dollars, indicates a progressive rise which appears to be contrary to the usual concept of declining incremental costs associated with electric

[1] Adjusted to 1939 constant dollars, based on the Consumers Price Index.

EFFICIENCY *VERSUS* EARNINGS IN THE ELECTRIC INDUSTRY







utility operations. On Chart D_1 (page 299) are shown the trends of the following elements of expense on a unit basis obtained from the FPC statistics for 1952:

1. Cost per kilowatt-hour generated rising from 2.1 mills in 1939 to a maximum of 4.2 mills in 1949 and then declining to 3.3 mills in 1952. The increase of 1952 over 1939 amounts to 57 per cent.

2. Production and transmission expense (ex fuel) per kilowatt of capacity rising from $9.18 in 1939 to a maximum of $15.95 in 1948 and then declining to $12.33 in 1952. The increase of 1952 over 1939 amounts to 34.4 per cent.

3. Distribution expense per customer rising continuously from $7.59 in 1939 to a maximum of $13.05 in 1952. The increase of 1952 over 1939 amounts to 72 per cent.

4. Customer accounting expense rising from $3.42 in 1939 to $4.88 in 1952. The increase of 1952 over 1939 amounts to 43 per cent.

The foregoing data are, of course, distorted by inflation and to that extent they conceal managerial efficiency as well as the "progress of the art" of which the industry can be justifiably proud.

If the above unit costs are adjusted to constant dollars of 1939 purchasing power and to physical values in the case of costs per kilowatt-hour generated—namely, the pounds of coal or equivalent fuel per kilowatt-hour generated—the following relationships and trends are shown on Chart D_2 (page 299):

1. Pounds per kilowatt-hour declined from 1.377 in 1939 to 1.097 in 1952. This represents a decline of 20.3 per cent.

2. Production and transmission expense (ex fuel) per kilowatt of capacity declined from $9.18 in 1939 to $6.04 in 1952 or a decrease of 34.2 per cent.

3. Distribution expense per customer fell from $7.59 in 1939 to $6.40 in 1952, a decline of 15.6 per cent.

4. Customer accounting expense per customers fell from $3.40 in 1939 to $2.60 in 1952, or a decline of 25.5 per cent.

The relationships of unit expenses shown on Chart D_2 are especially significant in so far as they indicate the relative technological advances made by the electric utility industry in its various departments. It is significant that the largest over-all decline took place in the total of the production-transmission function of the industry. While pounds per kilowatt-hour showed a decline of 20.3 per cent, the production and transmission expense (ex fuel) showed a much larger decrease of 34.2 per cent. On a weighted average basis, the over-all production-transmission expense showed a unit cost decline of 26.8 per cent, or the largest of the three main operating functions of the industry.

The smaller decline in the utilization of fuel can, to a degree, be attributed to the fact that in 1952 the industry, because of the rapidly rising demand for power, was still operating a substantial amount of old and relatively inefficient capacity which, under more favorable conditions, would not have been used. Had it not been for this, the increase in fuel efficiency would have undoubtedly been greater. In addition, there has been some deterioration in the quality of fuel which also contrib-

uted in holding down the efficiency of fuel utilization.

As regards the decline in unit costs of production and transmission (ex fuel) it can be seen from Chart D_2 that this expense exhibited not only the greatest improvement since 1939 but also the largest decline from the 1945 maximum, amounting to 45.7 per cent.

Here can be seen the results of progressive management taking advantage of an ever-expanding market for an underpriced service of extremely high intrinsic value. This growing market has necessitated the use of increasingly larger units of capacity operating under conditions of continuously improving utilization. Not only have these units operated under high temperatures and pressures resulting in increased fuel economies, but in turn they have needed less man power not only because of increasing size but also because of higher reliability and progressively greater use of supervisory instrumentation and automatic controls generally.

The second largest decrease is shown by customer accounting costs and amounts to 25.5 per cent since 1939. Again, as in the case of production, the continuous nature of operations, coupled with the use of improved accounting machines, has succeeded in reducing the cost per customer. It is doubtful whether the actual increase in the number of accounts handled had as great an effect in decreasing costs as the "progress of the art." There is reason to believe that advances in electronic accounting will tend to lower unit costs even further.

In the field of distribution progress has been slowest of any of the major expense groups. The relatively small size of this decrease, amounting to 15.6 per cent since 1939, can be attributed in part to the lack of operational continuity or of repetitive functions and, as a consequence of which the utilization of labor and of materials and supplies has, of necessity, been lower than with either production or customer accounting. In addition, rising standards of service, the increasing use and diversity of appliances operated by residential customers, as well as the necessity for expanding into thinner territory, have all had their share in keeping improvements in distribution unit costs to more modest levels.

The whole question of distribution is not a problem which affects the utility industry alone. All segments of the economy, whether they be manufacturing, agriculture, or the extractive processes,

¶ "The *history of the electric utility industry is a record of technological progress and achievement in which management has been the principal architect and the customer the chief beneficiary. In spite of the tremendous pressure of inflation, which has affected the price of almost all goods and services, the electric utility industry appears to be the one exception to this rule. Even in terms of current dollars the price per unit has shown substantial declines while in terms of constant 1939 dollars the customer has received a windfall of unparalleled proportions.*"

have had the problem of improving distribution for their products on the one hand and controlling the rise in costs on the other.

The very disparity between the cost trends of production and distribution has focused the attention of management on this large segment of operating expenses. It is here that the field for improvement is the greatest and the rewards commensurate with the complexity of the problem.

The foregoing analysis of operating expenses was merely a preliminary step to the determination of an index of operational performance. This index would, in effect, be the reciprocal of the constant dollar unit operating expenses previously outlined. For example, in the case of distribution expenses which is measured in dollars per customer, the performance index would be the reciprocal of it, or customers per dollars of expense, based on constant 1939 purchasing power. In effect then, the index will show the number of customers which one constant 1939 dollar can handle. These values were in turn indexed on a base of 1939=100.

The three steps in this computation, indicated on Charts D_1 and D_2, show the "raw" undeflated data of unit operating costs and the adjusted values based on constant 1939 dollars, respectively. On Chart E (page 301) are shown the reciprocals of data on Chart D_2.

On Chart F (page 301) are shown the components of Chart E but in index form based on 1939=100.

THE composite performance index was then calculated as a weighted arithmetic average based on the participation of the four cost components in the total operating expenses of the industry for each year. This over-all index is shown on Charts G and H (page 301).

The general trend of the operational performance index shows substantial improvement, especially in the postwar years. Because of the retarding effect of the war years the rate of growth from 1939 through 1952 amounted to $2\frac{1}{4}$ per cent per annum compounded. However, in the six years from 1946 through 1952, the rate of growth amounted to $4\frac{3}{4}$ per cent per annum compounded. This latter rate of growth was primarily a combination of improved fuel efficiencies, as well as increased size of generating units going into service.

The improvement in technological efficiency was particularly noticeable from 1948 through 1951 when the ability of new postwar equipment to reduce costs began to make itself felt. While the continuation in the improvement of the performance index may not be as marked as it has been in the postwar period, the long-term trend from 1939 to date should certainly be exceeded by a considerable margin.

The Effect of Operating Efficiency on Earnings

ON Chart H are shown the relationships of the performance index and the rate of return on the net original cost rate base at the end of the year. In this connection, working capital was computed on the basis of forty-five days of operating expenses (ex purchased power) plus materials and supplies. The adjustments made by the FPC subsequent to 1950 make that agency's figure unreliable for comparative purposes.

The rise in the rate of return in the face of a slightly declining performance index

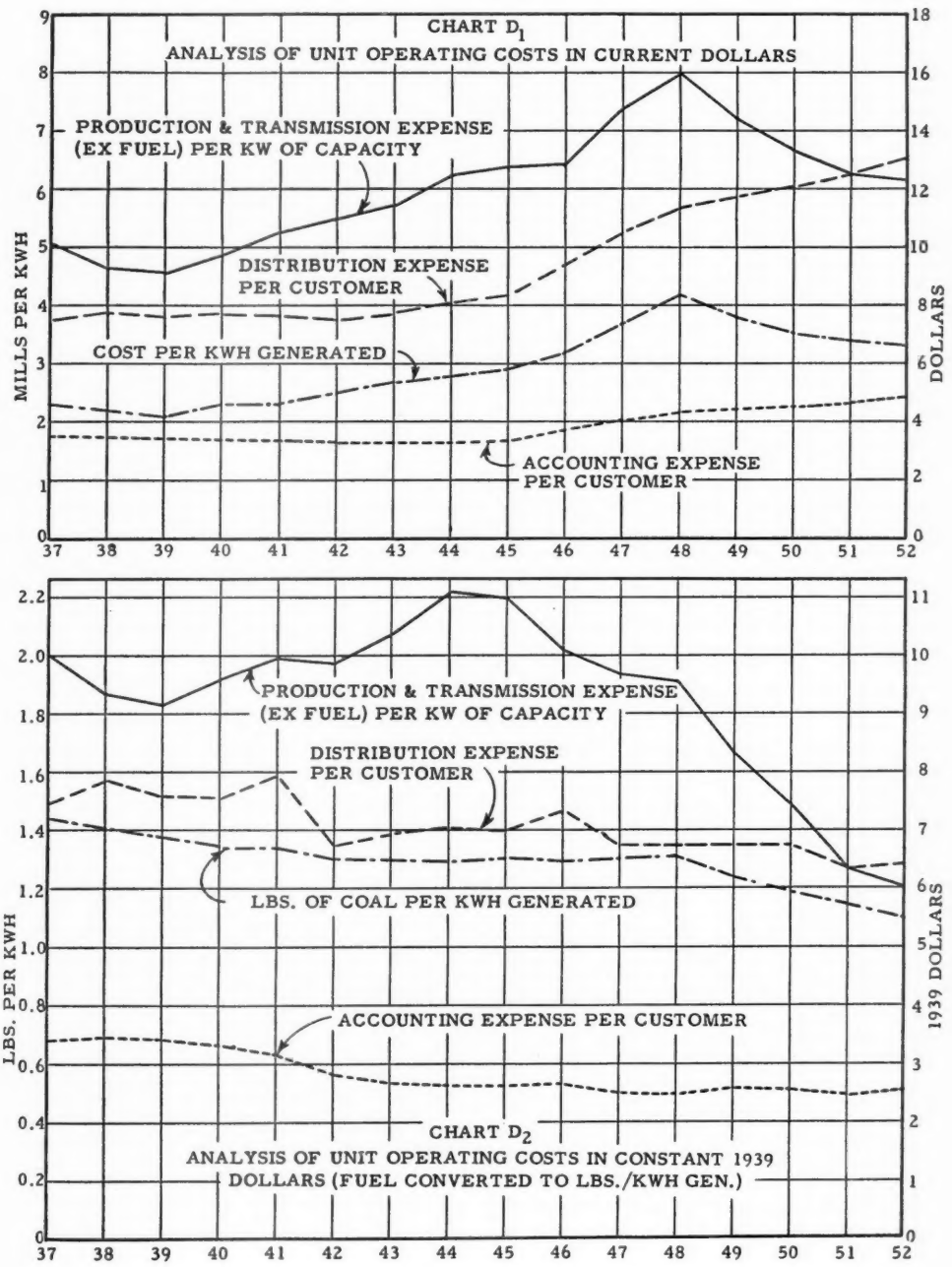


CHART D_1
ANALYSIS OF UNIT OPERATING COSTS IN CURRENT DOLLARS
PRODUCTION & TRANSMISSION EXPENSE (EX FUEL) PER KW OF CAPACITY
DISTRIBUTION EXPENSE PER CUSTOMER
COST PER KWH GENERATED
ACCOUNTING EXPENSE PER CUSTOMER
MILLS PER KWH
DOLLARS
PRODUCTION & TRANSMISSION EXPENSE (EX FUEL) PER KW OF CAPACITY
DISTRIBUTION EXPENSE PER CUSTOMER
LBS. OF COAL PER KWH GENERATED
ACCOUNTING EXPENSE PER CUSTOMER
LBS. PER KWH
1939 DOLLARS
CHART D_2
ANALYSIS OF UNIT OPERATING COSTS IN CONSTANT 1939 DOLLARS (FUEL CONVERTED TO LBS./KWH GEN.)
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

from 1942 through 1945 can, of course, be explained by the substantial plant "write offs" or accounting adjustments which took place in the face of only moderate increases in operating income. Thus, while the net plant decreased from $12.542 billion to $11.426 billion, or a decline of 8.7 per cent in this period, gross investment in new facilities increased approximately $1.285 billion. At the same time, operating income increased from $744,000,000 to $833,000,000, or 12 per cent. This piece of accounting fiction produced, of course, an apparent rise in the rate of return from a low of 5.8 per cent in 1942 to a high of 7 per cent in 1945.

As the investment in plant increased during the postwar period (along with a decline in the amount of downward accounting adjustments), the rate of return fell steadily from 7 per cent in 1945 to 5.5 per cent in 1952, or a relative decrease of 21.4 per cent. In this period, operating income increased 43.5 per cent while net plant increased 80.5 per cent, and the performance index rose 36 per cent.

From the foregoing relationships it is clear that the customer received substantially all of the benefits and the investor little, if any, of the increases in managerial efficiency, technological improvement, and the increasing scope of the market resulting from regulatory underpricing of electric utility service.

The foregoing analysis, based as it is on nominal dollar earnings against a net original cost rate base, hardly tells the whole story of the erosion of utility income that has really taken place in terms of constant 1939 dollars. It is doubtful whether in 1952 a return materially in excess of 3 per cent on a present value rate base was actually earned by the electric utility industry.

While it is not suggested that all the savings arising from improved operating techniques should accrue to the owners of the business, it would appear to be equitable that at least a half (based on the 1939 relationship) of the operating efficiencies previously described should flow through to the common stockholders. On Chart H is shown the effect of a 50-50 split wherein savings would be equitably divided between customers and owners. Instead of the 5.5 per cent rate of return on the net original cost rate base actually earned in 1952, the adjusted return which would give some recognition to increased operating efficiency would only amount to 7 per cent and that only on a nominal dollar rate base. In terms of an over-all rate increase this would amount to a rise of only 11.2 per cent on the 1952 electric operating revenues of the private electric utility industry. For a gain from 1939 to 1952 of some 34 per cent in the performance index, an increase of only 11.2 per cent in operating revenues appears to be modest enough.

The record of the private electric utility industry for stability of earnings and dividends does not need any reiteration in this article. It is superior to that of the telephone utilities and far superior to that of manufacturing industry. However, the inability of its earnings to participate in the general growth and expansion of the national economy as well as to offset inflation in its pricing policies (regulated as they are by statutes which were promulgated in periods of stable currency) has been of considerable concern

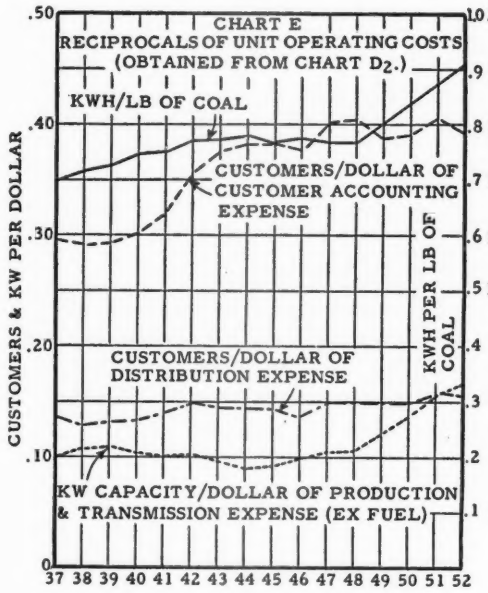


CHART E
RECIPROCALS OF UNIT OPERATING COSTS
(OBTAINED FROM CHART D2.)
KWH/LB OF COAL
CUSTOMERS/DOLLAR OF CUSTOMER ACCOUNTING EXPENSE
CUSTOMERS/DOLLAR OF DISTRIBUTION EXPENSE
KW CAPACITY/DOLLAR OF PRODUCTION & TRANSMISSION EXPENSE (EX FUEL)
CUSTOMERS & KW PER DOLLAR
KWH PER LB OF COAL
.50
.40
.30
.20
.10
0
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

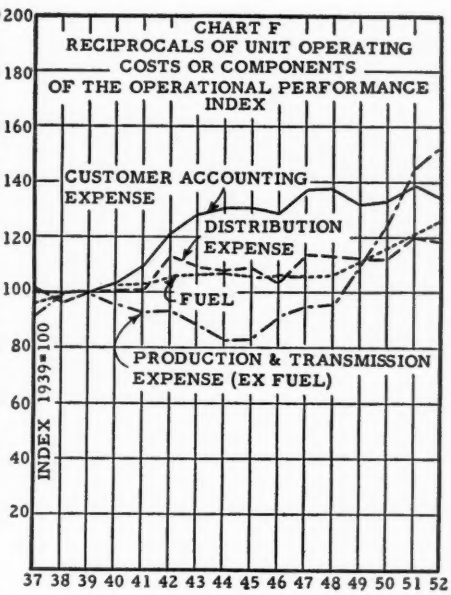


CHART F
RECIPROCALS OF UNIT OPERATING COSTS OR COMPONENTS OF THE OPERATIONAL PERFORMANCE INDEX
CUSTOMER ACCOUNTING EXPENSE
DISTRIBUTION EXPENSE
FUEL
PRODUCTION & TRANSMISSION EXPENSE (EX FUEL)
INDEX 1939=100
200
180
160
140
120
100
80
60
40
20
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

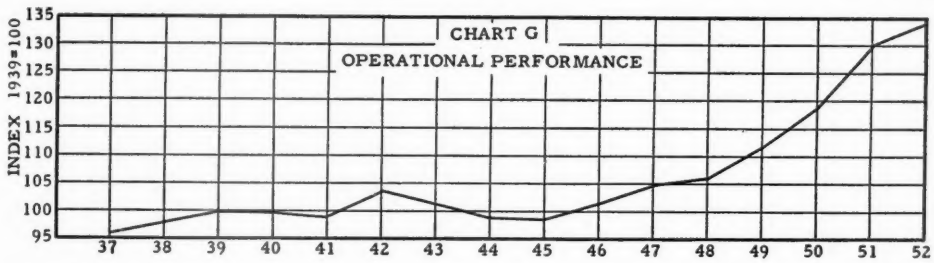


CHART G
OPERATIONAL PERFORMANCE
INDEX 1939=100
135
130
125
120
115
110
105
100
95
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

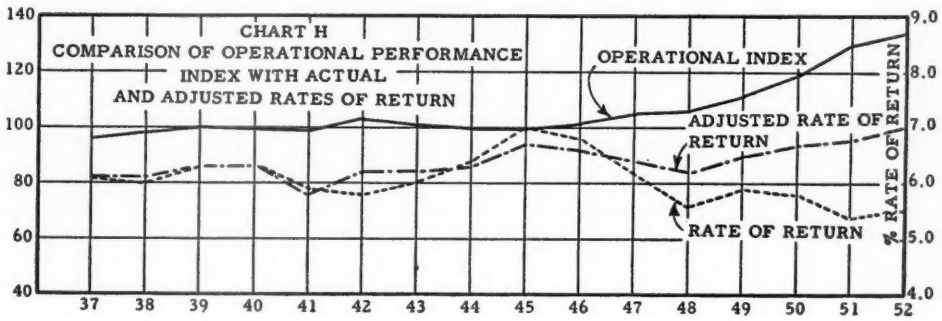


CHART H
COMPARISON OF OPERATIONAL PERFORMANCE INDEX WITH ACTUAL AND ADJUSTED RATES OF RETURN
OPERATIONAL INDEX
ADJUSTED RATE OF RETURN
RATE OF RETURN
% RATE OF RETURN
140
120
100
80
60
40
9.0
8.0
7.0
6.0
5.0
4.0
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

to utility managements all over the country.

THE essence of the Supreme Court's Bluefield decision[2] was that utility earnings should be commensurate with earnings of similar enterprises having comparable risk characteristics. This decision, rendered as it was in 1923 when currency was stable, is probably more valid today than it was then, because of the additional problem of inflation. The trend of industrial earnings and dividends since 1939 indicates their ability to overcome inflation through the pricing of a free market economy. Utility earnings and dividends, tied as they are to outmoded concepts of regulation, have suffered material damage, especially as to the equity capital which was embarked in the enterprise in earlier years.

Since some correction to this trend is needed, an equitable method of doing this would be to split the benefits of technology and managerial efficiency, based on the performance index, equally between customers and owners of the industry. On Charts I_1 and I_2 (page 303) are shown the adjusted earnings and dividends per share, on an index basis, of the utility industry compared to industrial earnings and dividends. That this increase is modest enough is shown by the fact earnings per share will rise to an index of 105 or fractionally over the 1939 level while dividends will just return to that amount. This adjustment would necessitate an increase of only 11.2 per cent in electric operating revenues and would give the equity owners nothing more but a restoration of their 1939 position. While this would be a step in the right direction it would be only one step on the long road leading back to a point where the utility investor can be considered a participant in the growth and expansion of the American economy and where the present discrimination under which he currently labors would at least be partially lifted.

AN interesting relationship can be seen in Chart J (page 303) in the trends of the performance index *versus* residential kilowatt-hour sales and revenues per customer and kilowatt-hour sales and revenues per ultimate customer. All revenues are based on constant 1939 dollars indexed to 1939=100. The most important feature which can be seen from this chart is the rise in the usage per residential customer and decline in revenues received. Thus, while in 1952 the index of use stood at 242 of the 1939 value, revenue was only 87.5. At the same time, dividends per share stood at 75 and the operational performance index at 134. The kilowatt-hour usage of ultimate customers, which in 1952 stood at 194, should be compared to the index of revenues of 84 in the same period. At the beginning of this article it was shown that the actual price received per kilowatt-hour of residential service amounted to only 1.45 cents in terms of 1939 dollars or equivalent to an index of 36.2. In other words, the residential customer received 142 per cent more service for a decline in unit price of 63.8 per cent. The foregoing is merely another indication that utilities through the underpricing of their service have not been adequately compensated for the progressive rise in the operational index.

The operations of the electric utility industry should be compared not only to its

[2] Bluefield Water Works & Improv. Co. *v.* West Virginia Public Service Commission, 262 US 679, PUR1923D 11.

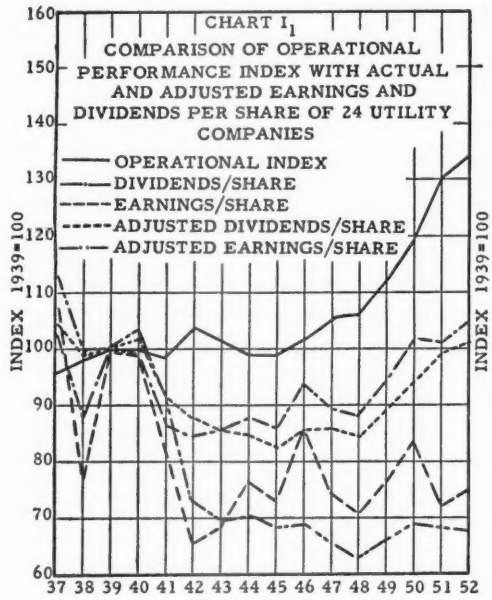


CHART I1
COMPARISON OF OPERATIONAL PERFORMANCE INDEX WITH ACTUAL AND ADJUSTED EARNINGS AND DIVIDENDS PER SHARE OF 24 UTILITY COMPANIES
OPERATIONAL INDEX
DIVIDENDS/SHARE
EARNINGS/SHARE
ADJUSTED DIVIDENDS/SHARE
ADJUSTED EARNINGS/SHARE
INDEX 1939=100
160
150
140
130
120
110
100
90
80
70
60
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

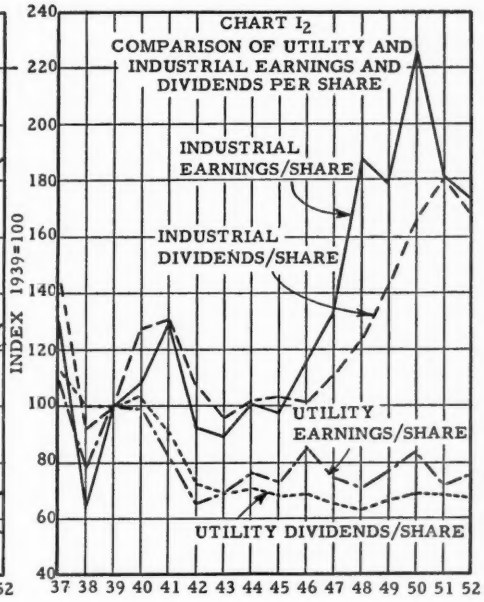


CHART I2
COMPARISON OF UTILITY AND INDUSTRIAL EARNINGS AND DIVIDENDS PER SHARE
INDUSTRIAL EARNINGS/SHARE
INDUSTRIAL DIVIDENDS/SHARE
UTILITY EARNINGS/SHARE
UTILITY DIVIDENDS/SHARE
INDEX 1939=100
240
220
200
180
160
140
120
100
80
60
40
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

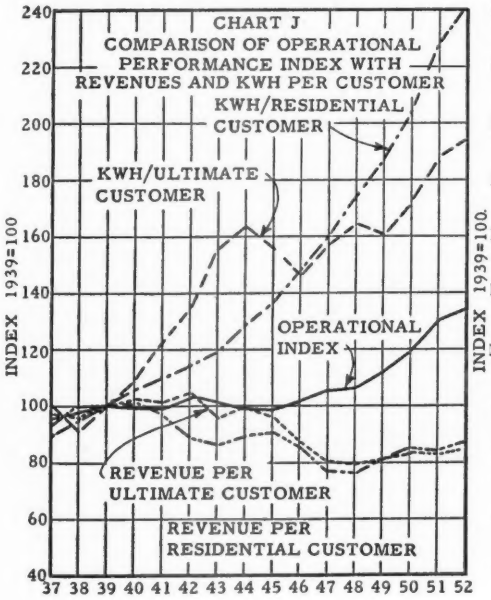


CHART J
COMPARISON OF OPERATIONAL PERFORMANCE INDEX WITH REVENUES AND KWH PER CUSTOMER
KWH/RESIDENTIAL CUSTOMER
KWH/ULTIMATE CUSTOMER
OPERATIONAL INDEX
REVENUE PER ULTIMATE CUSTOMER
REVENUE PER RESIDENTIAL CUSTOMER
INDEX 1939=100
240
220
200
180
160
140
120
100
80
60
40
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

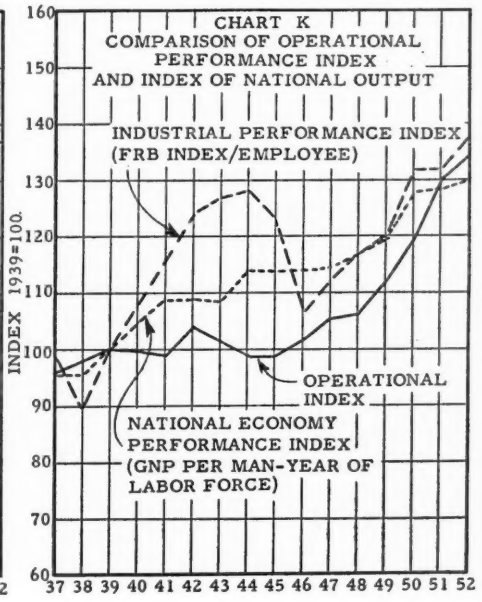


CHART K
COMPARISON OF OPERATIONAL PERFORMANCE INDEX AND INDEX OF NATIONAL OUTPUT
INDUSTRIAL PERFORMANCE INDEX (FRB INDEX/EMPLOYEE)
OPERATIONAL INDEX
NATIONAL ECONOMY PERFORMANCE INDEX (GNP PER MAN-YEAR OF LABOR FORCE)
INDEX 1939=100
160
150
140
130
120
110
100
90
80
70
60
37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

manufacturing and industrial counterparts and the earnings which they produce but also to the productivity of the economy as a whole.

It is believed that an equitable comparison can be made based on the relationship of physical production per employee, based on the FRB index, in the case of manufacturing and the index of performance as devised in this report for the utility industry on the other hand. Another comparison for the economy as a whole would be that of the index of performance with the Gross National Product per labor force man year.

From trends shown on Chart K (page 303), it will be seen that the correlation of the three factors, especially after the war, is close and that the performance of the utility industry is not out of line with either the FRB index per employee or that of the Gross National Product per labor force man year.

On Chart L (page 305) are shown the relationships of FRB index per employee and the dividends and earnings per share of 125 manufacturing corporations.

Similarly, Chart M (page 305) shows the dividends and earnings per share of 200 corporations and the index of GNP per man-labor force year all based on constant 1939 dollars.

The comparison of these two charts with the previous charts showing the relationship of utility earnings and dividends per share, and the operational performance index of the electric utility industry indicates that while the efficiency of the utilities is at least as good as that of all industry, dividends and earnings are neither commensurate with the industry's performance nor with the earnings and dividends of its manufacturing and industrial counterparts. In fact, it would appear that the greater the efficiency of operations the lower the earnings and dividends.

Thus, while dividends and earnings of manufacturing have far outstripped the industry's performance, especially in the postwar period, the electric utility industry, operating as it does under the artificialities and restraints of the regulatory system, has not been permitted even to recoup inflationary losses, let alone overcome them the way industrial earnings have done.

The classical concept of regulation of public service industries is that the regulatory process is a substitution for the competitive market conditions which rule the major portion of the free enterprise economy.

Again, under the equality of risks and earnings theory, as enunciated by the Supreme Court in the case of the Bluefield, United Railways,[3] and Hope[4] cases, it is clear that the substitution of regulation for competition has, as a practical matter, fallen far short of the principles which the court has promulgated.

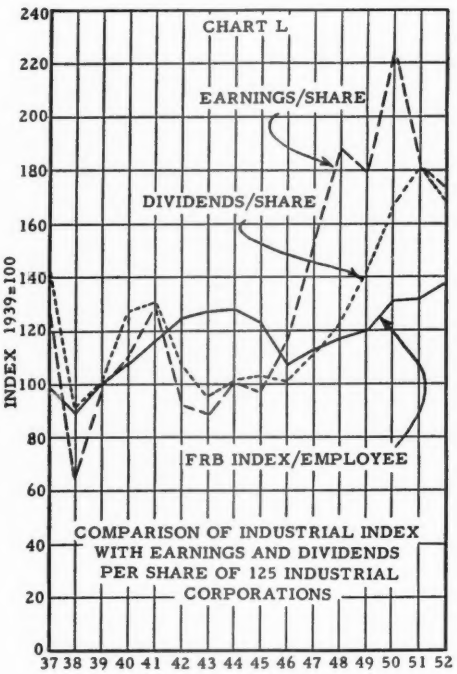
A major element of risk to any business is an economic depression. In the long run, the interdependence of the various segments of the economy is such that no single part can resist a severe depression for very long, and the electric utilities are no exception to this rule.

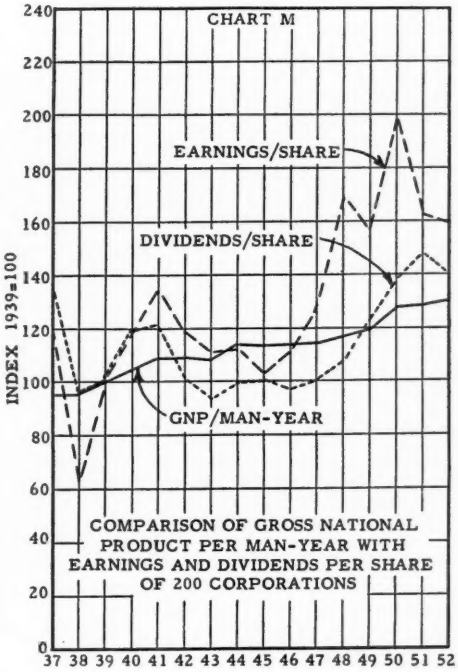
While the diversification of revenues, the more essential need, and the underpricing of utility services are such that the

[3] United R. & Electric Co. *v.* West, 280 US 234, PUR1930A 225.

[4] Federal Power Commission *v.* Hope Nat. Gas Co. (1944) 320 US 591, 51 PUR NS 193.

EFFICIENCY *VERSUS* EARNINGS IN THE ELECTRIC INDUSTRY





effect of a depression is delayed compared to industrial enterprises, in the long run it cannot be avoided.

On the other hand, the data shown in the report demonstrate that the utility industry has not participated in the expansion of the economy, either from the point of view of earnings or dividends, while the value of service supplied to the customer has grown from year to year.

Furthermore, there is no reason to believe that the utilities will receive any special consideration from the commission during an economic recession, and consequently it would appear that the industry cannot lay something aside for "the rainy day" under the present system of regulation.

This article has dealt with only one phase of operational economics; namely, that which arises from technological progress and is in turn dependent on progressive and forward-looking management. To that extent the suggested rate adjustments, based as they are on industry averages, reflect only a portion of the total increases needed to bring utility earnings in line with the rest of the economy.

WHILE the foregoing analysis of operational efficiency is preliminary in nature it is highly important and one where little research has been done.

The recognition of managerial efficiency is embedded in the regulatory theories of this country. In 1923 the United States Supreme Court in its famous Bluefield decision said in part "The

return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, *under efficient and economical management,* to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties." (Emphasis supplied.)

Commissions have generally taken pains to recognize the importance of good management; thus the Federal Power Commission in its opinion on the Safe Harbor Water Power Corporation in 1940[5] in listing the factors to be considered in the determination of the rate of return said, "The return should reflect, among other things, *due recognition of efficiency or lack of efficiency in management.* The future prospects of the utility, its taxes and development, the potential stimulation from reduced rates, and the character of the service should be considered."

At the state level, the Vermont Public Service Commission in its order on the Green Mountain Power Corporation in 1933[6] said, "The efficient and economical operation of any utility should result in two benefits, first to the ratepayers in lower rates and to the utility in a larger return, for either ratepayer or utility to reap the entire benefit" is unjust.

An excellent over-all commentary on this subject was made by Dr. Clyde Olin Fisher, former chairman of the Connecticut Public Service Commission, when, writing in the PUBLIC UTILITIES FORTNIGHTLY of July 19, 1945,[7] he said:

An almost entirely neglected aspect of regulation is financial recognition of high efficiency. Commissions have frequently asserted that a given return was appropriate because of the efficiency or inefficiency, as the case might be, of a given management. Such generalizations, in the absence of objective data, are something short of convincing. Possibly one of the greatest needs in the regulatory technique at the present time, if scientific procedure is to be substituted for general impressions, is the formulation of objective standards by which quality of performance can be measured. No such standards now are available, standards which are essential if it be desirable to give incentive to progressive management. Does the absence of performance recognition open the door to the weaknesses of the "cost-plus" contract with all the abuses that characterize such? Have the wide margins set by regulation of the past protected us in a measure from the losses of efficiency inherent in this cost-plus plan? But regulation of the future must be more precise, and with the development of greater accuracy and scientific findings it may be considered good policy to reward efficiency where demonstrated.

A review of commission decisions and other pronouncements indicates the compelling necessity for a more thoroughgoing study and analysis of the rate of return than has ever been made to date.

It is believed that the analysis presented in the foregoing article is a step leading in this direction.

[5] 34 PUR NS 21.

[6] PUR1930B 171. See also the Wisconsin commission decision in City of Two Rivers *v.* Commonwealth Teleph. Co. 70 PUR N S5.

[7] "Another Look at the Utility Rate of Return."

What Does the New Atomic Energy Law Mean?

The new Atomic Energy Act contains provisions which will have a far-reaching effect on the future relationship of atomic energy development and the electric power industry. This article also covers important facts dealing with future licensing of power plants by publicly and privately owned utility agencies using the nuclear reactor fuel.

By THOMAS P. SWIFT*

In the wee small hours of a hot summer night the U. S. Senate chamber presented a most unusual spectacle. A single Senator, Wayne Morse (Independent) of Oregon, droned away through the night hours while another Senator sat fitfully dozing in the presiding officer's chair. The place was otherwise deserted except for several sleepy page boys and a handful of drooping spectators in the gallery. Out in the darkened corridors and cloak rooms other Senators talked and smoked and some even reclined on cots, ready for the possible roll call which might put an end to their ordeal.

The Senate was considering HR 9757, an amendment to the Atomic Energy Act of 1946. Already passed by the House at that point, the bill—comprising over 100 pages—was ostensibly aimed at the federal government's tight war-born monopoly over the complicated business of splitting the nucleus of the atom to produce "atomic energy." It also provides for the sharing or pooling of atomic information concerning both weapons production and peaceful applications with friendly foreign nations in the interest of world peace and

*Utility news analyst, *The New York Times*, New York, New York. For additional personal note, see "Pages with the Editors."

the national defense. All this would be accomplished under the supervision of the Atomic Energy Commission, set up by the original McMahon Act of 1946, according to standards laid down by the new law.

THESE objectives in themselves would seem to be commendable enough from the standpoint of the average American citizen. It was nearly a fortnight later before the atomic energy bill, modified in some respects by a second House-Senate conference, was passed to the White House for the President's signature. But one could have listened all night long to Senator Morse's arguments, and all the next day, and the day after, to the arguments of his colleagues of the opposition without learning the real basis of the stubborn effort to block passage of this bill. The truth of the matter seems to be that all of the Senators themselves did not have the same reasons for opposition.

Certainly it was not the international agreement part of the bill. Offhand that might seem to be the most important part of all. But time after time Democratic Senators Gore and Kefauver of Tennessee, Humphrey of Minnesota, and Lehman of New York pleaded with the Republican leadership to split the bill and send the international provisions through as separate legislation. Majority Leader Knowland of California merely shook his head, knowing full well that such a course would doom the chances of the rest of the bill.

THE arguments all appeared to revolve about four provisions of the bill: (1) whether the AEC should be allowed to go into the business of building and operating atomic power plants along the lines developed and expanded during the past two decades by the Tennessee Valley Authority in the electric power field; (2) whether the AEC should be permitted to contract with privately owned utility companies for the building and operation of power plants in the immediate future to supply electricity to TVA to replace TVA power required in other areas by the AEC; (3) whether private company participation in commercial atomic developments should be allowed to take out patents covering inventions or discoveries made during the course of their operations; (4) whether other public agencies—federal, state, local, or co-operative—should be granted a priority over private companies in the purchasing of power from AEC plants or in the obtaining of licenses from AEC to build their own atomic power plants.

Some of these points might strike the casual observer as pretty small compared with the over-all importance of the bill. Why, then, the furious eleventh-hour battle by a minority of the Senate in the face of an overwhelming majority vote in the House—a battle during which the fate of the bill hung in the balance for several days? Some Senators, notably those from the Tennessee valley area, were doubtlessly influenced by the local popularity of TVA entrance of the federal government into the power business.

THE proposal in the bill to let private power companies, just across the Mississippi from Memphis, supply power to TVA for the account of the AEC (instead of letting TVA build up its own production as in the past) had brought anguished cries from that valley, blessed by federal spending. The power proposal had been denounced heartily in the local press as a "plot to destroy TVA." Conversely,

Democratic Senators from Arkansas, in which the new plant would be built, welcomed the advent of such an important enterprise.

Then, too, there may have been partisan political reasons for blocking an administration's legislative program which was destined to play an important part in the congressional elections in the fall of 1954. Some of the opposition had counted heavily on the charge of a "do-nothing Republican Congress"—an issue which former President Truman had successfully exploited in 1952 with reference to the 80th Congress.

BUT if one wanted to probe beneath the surface of such local or political overtones, there could be no doubt about the real basis for the opposition. Leland Olds, former chairman of the Federal Power Commission, who was denied confirmation for renomination to that commission on ideological grounds, states his understanding of it very honestly and succinctly.

Writing in the leftist magazine *The Nation* (issue of July 17, 1954), Olds stated that "If it should become law in its present form it would unquestionably prove the most far-reaching piece of legislation in its effect upon our social order of any in recent times. At stake is the question of who shall control the ushering in of the atomic age."

We get the same impression from another magazine, far to the right of Mr. Olds' position, the well-known McGraw-Hill publication *Electrical World,* which stated in its issue of August 23, 1954: "For electric utilities, the measure sent to the White House last week already ranks as the most significant power legislation enacted by the Republican 83rd Congress. History may rank it as the most important of any legislation handled by the departing lawmakers."

BEFORE considering the text of the new law, it must be borne in mind that atomic energy, in the opinion of most experts, is bound to have a terrific impact on the future, not only of the electric utilities but other fuel industries as well. These same experts may differ widely as to the time range when atomic power will be commercially competitive with conventional fuel-generated power.

Estimates vary from less than ten to twenty years. One of the best-known experts in this particular field, Walker L. Cisler, president of The Detroit Edison Company and chairman of the management committee of the Dow Chemical-Detroit Edison & Associates Atomic Power Development Project, said the new law will undoubtedly speed up atomic power development. "We trust that the performance of private industry may in

¶ *"... the electric utility industry is confronted with the certainty of revolutionary change one day—ten or twenty years hence—when atomic energy will be the basis for most of our electric power supply. More than that! By industrial application of its heating by-product, atomic energy may well account for much of the nation's heating, air conditioning, as well as power for light supply."*

the future demonstrate that it is entitled to the full confidence of the public," said Mr. Cisler.

In other words, the electric utility industry is confronted with the certainty of revolutionary change one day—ten or twenty years hence—when atomic energy will be the basis for most of our electric power supply. More than that! By industrial application of its heating by-product, atomic energy may well account for much of the nation's heating, air conditioning, as well as power for light supply. This is obviously going to be very significant for all existing fuel industries: oil, natural gas, and coal. The present heavy investment in natural gas pipelines and in hydroelectric facilities faces the possibility of eventual economic dislocation before the end of the useful life of such facilities—although the experts disagree about that. Some claim that the change will be so gradual that existing facilities will be used up, while atomic plant facilities will be ushered in primarily as supplementary sources of power and heat.

Any way you figure it, however, public utility companies, both gas and electric, may now be in about the same position as wagon makers and livery stable operators at the turn of the century. Through prudent adjustment to changing techniques, it may be quite possible for these industries to shift over into the new order of things, without serious loss and indeed with substantial profit. One is reminded of the historic changeover which the old farm wagon manufacturer Studebaker made to the automobile field when the horseless carriage came into its own after the turn of the century.

As a matter of fact, comparative revolutionary changes have always been happening in this country. Under the competitive enterprise system, the transitions have been gradual and orderly. Some people lost money. A lot more made money. But, in any event, it did not cost the taxpayer anything.

This era of transition could work out that way under the new Atomic Energy Act if private enterprise is permitted to occupy the commercial development field. People who now have their money in oil, coal, gas, and other lines which may be affected, would be able to switch over either their investment or the character of their operations to fit into the new pattern.

On the other hand, if the federal government or other forms of government enterprise are going to dominate the atomic development picture, it is quite likely that a government monopoly will develop and there will be little or no place for private enterprise. We have a good example of that, on a still limited scale, in the Tennessee valley where a federal monopoly in electric power supply has developed. Historically, throughout the world, government in business generally makes short work of private enterprise competition, if it tolerates it at all. The so-called "yardstick" of yesterday becomes the expanding government bureau of today and the absolute service monopoly of tomorrow.

And so the whole controversy boils down to a matter of ideological conviction. There are some perfectly sincere people in this country who are in favor of government monopolies. They point out that the federal government has invested billions in atomic development and that

Salient Provisions of the New Atomic Energy Law As Affecting Electric Utilities

Atomic Bombs. Only the AEC pursuant to the direction of the President may make, possess, or deliver experiments with such weapons (§ 91) and all private parties are forbidden (§ 92) to engage in the same.

Atom Power Plants—U. S. The AEC may produce energy for its own use or experimental purposes (§ 44) and sell surplus for public distribution. (See "Preference Clauses.") But it may not engage in such commercial sales except as an incident to its research or production operations. The construction of such demonstration plants (§ 31a(4)) would require specific authorization by Congress (§ 261).

Atomic Power Plants—Licenses. The AEC may issue licenses for atomic power plant development for commercial use (§ 182), giving preference to high power cost areas and (in case of conflicting application) to public or co-operative bodies.

Contracts for Electric Supply. The AEC may enter into contracts for the supply of electric power directly for its own production or for replacement of TVA supply (§ 164), subject to 30-day review (but not veto) of such contracts by the congressional joint committee. Such contractors may not be directly reimbursed for federal taxes (§ 170).

Preference Clauses. Public and co-operative bodies have a preference in the sale of surplus power produced by AEC incident to its experimental plants (§ 49). But private utilities may also purchase such power (§ 44). The price paid must be "reasonable and nondiscriminatory," and subject to regulatory jurisdiction. But AEC will not itself regulate either the price paid or rates for sale to the public. Public and co-operative bodies also have a preference in case of "conflicting application" for licenses to build and operate atomic electric power plants (§ 182c).

Patents. All nonweapon inventions may be patented under normal procedure (§ 152). But until September 1, 1959, they will be subject to compulsory licensing by AEC, which will also fix royalty fees.

Regulation. Atomic power production for sale to the public in interstate commerce shall be subject to regulation by the FPC under the Federal Power Act (§ 272).

Research. Private research is encouraged (§ 33) under AEC licenses and regulation.

Secrecy. The AEC will determine when and what data may be disclosed (§ 142) and provide security clearances as necessary.

this is "the people's heritage," and should remain in the public domain.

Indeed, one of the witnesses before the Joint Committee on Atomic Energy, James Finucane, testifying for the National Council for Prevention of War, saw a definite threat in the possibility that privately owned utilities might be able to make atom bombs and that the proposed safeguards against such an abuse in the new law is only verbal. "Might not there arise," asked Mr. Finucane, "a larger, more sinster form . . . of 'gunrunning to Cuba'?" In the same vein, Leland Olds in the July 10th issue of *The Nation* asked: "What would the atom bomb in the hands of private monopoly mean to the world's future?"

Such dark distrust of private industry, however, is currently shared by only a small and extreme minority. Ostensibly, Congress has settled the question of private industry participation in future atomic power development in passing the new law. The controversy, as stated before, centered over wording in the act which might, in the future, be interpreted in such a way as either to restrict private industry participation or encourage an expanded government activity.

Language of the New Law

MUCH of the fireworks in the Senate's consideration of the bill revolved about § 44, which gives the AEC authority to sell surplus power produced incidentally to the commission's construction and operation of experimental atomic electric power plants authorized by § 31 (a)(4).

This language contains not only a restriction on AEC operations to the extent of confining them to research or experimental facilities, which also grants a so-called "preference" for public power agencies to buy such power. In one of the earlier drafts of the bill, accepted by the House of Representatives, an attempt had been made to restrict this "preference clause" to a sale to public agencies "in so far as practicable." The public power bloc in the Senate fought this stubbornly. And the House, worn out by two conferences and a threat of further filibustering, yielded. The words "in so far as practicable" were deleted.[1] The public power Senators did not want the AEC to have any discretion in the matter. They wanted the preference to be absolute.

THE importance of this "preference clause" language may be seen with reference to the history of somewhat analogous language in the federal power legislation over nearly a half-century. It was on April 16, 1906, that Congress passed a 5-paragraph bill amending the Reclamation Act of 1902. Section 5 of that act stated that the Secretary of Interior may lease surplus power from irrigation projects, "giving preference to municipal purposes." The origin of this phrase is obscure. There

[1] As finally enacted § 44 reads in text: *"Disposition of Energy.* If energy is produced at production facilities of the commission or is produced in experimental utilization facilities of the commission, such energy may be used by the commission, or transferred to other government agencies, or sold to publicly, co-operatively, or privately owned utilities or users at reasonable and nondiscriminatory prices. If the energy produced is electric energy, the price shall be subject to regulation by the appropriate agency having jurisdiction. In contracting for the disposal of such energy, the commission shall give preference and priority to public bodies and co-operatives or to privately owned utilities providing electric utility services to high-cost areas not being served by public bodies or co-operatives. Nothing in this act shall be construed to authorize the commission to engage in the sale or distribution of energy for commercial use except such energy as may be produced by the commission incident to the operation of research and development facilities of the commission, or of production facilities of the commission."

were apparently no committee hearings held either in the House or Senate. The bill, as proposed in and passed by the Senate did not even contain the preference provision. It bobbed up in the bill as reported by the House Committee on Irrigation of Arid Lands. The whole bill did not pertain to power but rather to irrigation. It is hard to believe that Congress at that early date intended the modest phrase "giving preference to municipal purposes" to have the far-reaching effect which it later enjoyed.

But from such a small beginning the so-called "preference clause" was expanded to include federal agencies, nonfederal public agencies, state and local governments, and nonprofit co-operatives. It appears again and again in the TVA bill, the Bonneville Act, and, most important of all, in the Flood Control Act of 1944.

Former Secretary of Interior Oscar Chapman interpreted the "preference clause" as being almost an absolute priority in favor of public bodies and co-operatives.

Whether the use of similar language in the new Atomic Energy Act could be given such a strong interpretation as to build up a government empire in the atomic energy field probably depends on the composition of future members of the AEC.

It would seem plain enough that the AEC is restricted in its own construction and operation of atomic energy plants and the sale of power commercially to facilities developed as part of an experimental research program. There is an express limitation on regular commercial operations. This does not sound offhand like a very broad charter. But federal agencies (as seen in the experience of build-up of federal power under the "preference clause" interpretations) have been known to make great oaks of bureaucracy grow from some mighty small acorns of statutory authority.

The Dixon-Yates Contract

The controversy over the so-called Dixon-Yates contract for private companies to build a power plant in West Memphis, Arkansas, is something else again. This contract drew the heaviest fire from President Eisenhower's opposition. The AEC's authority was substantially modified in the course of passage of the new law.

Objection was made to a provision in the Dixon-Yates proposal relating to federal income taxes. The objection was sustained by a Senate vote on an amendment to the bill to prohibit direct payment or direct reimbursement by the AEC of federal income taxes paid by a contractor. The Senate-House conferees stated that it was not their intention to bar inclusion of federal income taxes in the base rate or cost structure of a commission contract.

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¶ "It *will probably be 1955 before the AEC will be able to thresh out even the preliminary routine problems involved in issuing the various forms of and regulations for filing application for licenses, etc. But it is clear that not only gas and electric utility industries but other fuel industries as well—coal and oil—have a new federal agency to follow and follow closely.*"

As it finally emerged, the new law was substantially a victory for the administration's recommendation that AEC be given authority to conclude the Dixon-Yates contract and to make similar contracts in the future,[2] subject to a review (of such contracts) of the joint congressional committee.

Pursuant to this provision, the Joint Committee on Atomic Energy scheduled a hearing for some time this month on the Dixon-Yates contract. The contract had become the center of a political dispute between the Eisenhower administration and Chairman Stephen Mitchell of the Democratic National Committee.

The administration on August 21, 1954, released lengthy documents tracing the course of Budget Bureau and AEC negotiations with the Dixon-Yates combine. Under terms of the proposed contract, the AEC would buy 600,000 kilowatts of power from Dixon-Yates, which would be distributed by the TVA to its consumers in the Memphis area to replace an equal amount of TVA power for the atomic energy plants.

Release of the documents was in answer to a charge by Mr. Mitchell that the administration had not advertised for bids[3] on the project and had favored Dixon-Yates because the golfer, Bobby Jones, a close friend of President Eisenhower's, had stock in the Dixon-Yates combine. Mr. Mitchell dropped the Jones charge after it was shown that the President had no knowledge of the negotiations until long after Mr. Jones purchased his stock. But he renewed the no-bids charge in a later speech.

REPRESENTATIVE Cole (Republican, New York), chairman of the joint committee, said the AEC forwarded the proposed contract to his committee under terms of an amendment to § 164 of the Atomic Energy Act. As will be seen from the foregoing quoted text, this amendment authorizes AEC to sign such contracts. Any such contract, however, must be submitted to the committee and thirty days must elapse before the contract can become effective. The committee may by resolution waive all or any portion of the 30-day period.

"The committee is thoroughly familiar

[2] Section 164 of the new law provides: "*Electric Utility Contracts.* The commission is authorized in connection with the construction or operation of the Oak Ridge, Paducah, and Portsmouth installations of the commission, without regard to § 3679 of the Revised Statutes, as amended, to enter into new contracts or modify or confirm existing contracts to provide for electric utility services for periods not exceeding twenty-five years, and such contracts shall be subject to termination by the commission upon payment of cancellation costs as provided in such contracts, and any appropriation presently or hereafter made available to the commission shall be available for the payment of such cancellation costs. Any such cancellation payments shall be taken into consideration in determination of the rate to be charged in the event the commission or any other agency of the federal government shall purchase electric utility services from the contractor subsequent to the cancellation and during the life of the original contract. The authority of the commission under this section to enter into new contracts or modify or confirm existing contracts to provide for electric utility services includes, in case such electric utility services are to be furnished to the commission by the Tennessee Valley Authority, authority to contract with any person to furnish electric utility services to the Tennessee Valley Authority in replacement thereof. Any contract hereafter entered into by the commission pursuant to this section shall be submitted to the joint committee and a period of thirty days shall elapse while Congress is in session (in computing such thirty days, there shall be excluded the days on which either house is not in session because of adjournment for more than three days) before the contract of the commission shall become effective: Provided, however, That the joint committee, after having received the proposed contract, may by resolution in writing, waive the conditions of or all or any portion of such 30-day period."

[3] For obvious reasons of national security AEC has always had and still has broad contractual authority without bidding restrictions unless expressly required.

The AEC Is Now a Hybrid Agency

"UNTIL *the enactment of the new atomic energy law, the AEC was, apparently an operating or administrative agency, set up to do the job of building atomic bombs and supervising construction, production, and research in connection therewith. But under the new law, AEC has a considerable amount of licensing authority, which would seem to put it into the category of a regulatory commission. The AEC thus emerges as a sort of hybrid agency, since it must perform new* REGULATORY *duties in addition to its old* ADMINISTRATIVE *duties.*"

with the course of negotiations followed in this matter," Chairman Cole stated in a press interview on August 23rd, "and has a general impression of the fairness and carefulness with which they have been conducted.

Unless we find that the contract itself is less advantageous to the government than it seems to be, it is doubtful to me that the committee will feel that it is necessary to open up the whole field again. I don't anticipate any reason for the committee to disapprove the contract now."

IN a way, the argument over the Dixon-Yates contract goes to the very crux of the basic struggle underlying the whole public power controversy over the atomic energy bill. True, there were distracting side issues: quibbling over construction cost, and questions about whether a rival bid from the so-called Von Tresckow group of New York has been given adequate consideration. There was also political criticism but less seriously entertained charges of undue influence and undue haste.

THE nature of the opposition to the enactment of the law can be seen in the series of amendments offered, during consideration of the bill. It can be seen in the delaying action, the filbustering and double joint conferences which almost killed the

bill. Most of all, it can be seen in the fact that even after public power bloc Senators had actually obtained acceptance by Congress of practically all of their objections, except an amendment to bar the Dixon-Yates contract, and after they hailed such concessions as a "great victory," they proceeded to vote against the bill on final passage.

This final vote in the Senate was 59 to 17, with no Republican Senators voting against the bill. The following sixteen Democrats, accompanied by the Independent Morse of Oregon, voted against final passage: Chavez (New Mexico), Clements (Kentucky), Gore (Tennessee), Hennings (Missouri), Hill (Alabama), Jackson (Washington), Johnston (South Carolina), Kefauver (Tennessee), Kerr (Oklahoma), Lehman (New York), Magnuson (Washington), Mansfield (Montana), Monroney (Oklahoma), Murray (Montana), Russell (Georgia), and Symington (Missouri). Democratic Senators Sparkman (Alabama) and Douglas (Illinois) were paired against passage of the bill.

THE AEC's explanation of its preference for the Dixon-Yates contract over the Von Tresckow proposal was that only the Dixon-Yates proposal was a firm offer with a stated maximum capital cost. They have created a new company organization, Mississippi Valley Generating Company. It is affiliated with Middle South Utilities, Inc., of New York, a holding company representing Mississippi Power & Light Company, Louisiana Power & Light Company, New Orleans Public Service Company, and Arkansas Power & Light Company. It is also affiliated with the Southern Company, representing Georgia Power Company, Alabama Power Company, Gulf Power Company, Birmingham Electric Company, and Mississippi Power Company.

The companies thus comprise, for the most part, virtually all of the larger electric utility companies long established and now operating in the area, representing nearly 160,000 stockholders in all sections of the United States. The rival organization had no such established utility connection, nor any comparable record for ability to construct and operate the necessary power facilities. Accordingly, the question of comparative ability to perform under any contract of the AEC was raised. Data released by the Budget Bureau indicated that, the question of performance to one side, the cost of facilities from either group would turn out to be about the same.

In any event, the construction cost of the proposed Dixon-Yates plant and related facilities was estimated at $107,250,000, and would be completed within three years. The main reason given by Chairman Cole for pushing the program was the time element. He said that cost of construction would be increased, to some extent, if there were further delay on starting the work. On the other hand, if preliminary ground construction, including a protecting levee, were commenced immediately, there should be no interruption of construction during the usual spring flood season next year.

PRIOR to the confirmation of Brigadier General Herbert D. Vogel to be chairman of the TVA, there had been some conflict of opinion from that source as to whether TVA could do the job cheaper. But such comparisons of cost between a private and public power agency invariably

run into questions of hidden subsidies, such as tax exemption, use of interest-free funds, etc.

The main point urged by the public power advocates was the fact that "the people," meaning the federal government, would own the plant if it were built by TVA. Private investors would own the plant if it were built by a private company, and bear a great deal of the risk.

In truth, that is exactly the real fundamental difference! President Eisenhower has repeatedly demonstrated the philosophy of his administration to get the federal government out of private business, or at least not to encourage its expansion. Public power advocates want the federal government expanded, in the power business at least, to the point of serious curtailment if not extinction of private enterprise, although that aim is not usually frankly admitted.

Licensing of Atomic Power Plants in the Future

ENTIRELY distinct from the sensational but passing arguments over the building of a conventional electric power plant to increase the TVA supply for the AEC, is the question of licensing by AEC of atomic power plants in the future, when their development makes such operations commercially feasible.

Here again we encounter the struggle between those who want developments and operations by government agencies and cooperatives to have a preference over similar activities by private companies. Chapter 16, § 182(c)[4] contains a "preference clause," as in the case of § 44 (dealing with the disposition and sale of energy from atomic power plants developed by AEC itself). But the clause also contains an important limitation. The preference is only to be granted where there is an actual "conflict" of applications for atomic power plant licenses.

As a practical matter, it is difficult to see how such conflicts could become a very common experience. Unlike applications for hydroelectric licenses granted by the Federal Power Commission, atomic power plant licenses will not have any inherent geographical limitations. After all, there are only a comparatively few *hydroelectric* sites in the country which are subject to economical development. But once the secret of commercially feasible atomic

[4] This provision is as follows: "The commission [AEC], in issuing any license for a utilization or production facility for the generation of commercial power under § 103, shall give preferred consideration to applications for such facilities which will be located in high-cost power areas in the United States if there are conflicting applications for a limited opportunity for such license. Where such conflicting applications resulting from limited opportunity for such license include those submitted by public or co-operative bodies such applications shall be given preferred consideration."

¶ "PRESIDENT *Eisenhower has repeatedly demonstrated the philosophy of his administration to get the federal government out of private business, or at least not to encourage its expansion. Public power advocates want the federal government expanded, in the power business at least, to the point of serious curtailment if not extinction of private enterprise, although that aim is not usually frankly admitted.*"

power plants is mastered, there is no reason why they cannot be built any place, anywhere, at any time, subject only to technical safety requirements.

UNDER such circumstances conflicting applications for licenses could only arise where there were conflicting claims over service territory. In other words, the United States is already pretty well divided up between public and private power supply agencies. With service areas so well defined there would seem to be no reason for rival applications except in a few fringe areas where boundaries and market distribution responsibilities have not been worked out. Of course, in the event of political upheavals or a continued agitation for the development of rural electrification co-operative organizations, a certain amount of rivalry could undoubtedly continue indefinitely. But compared with the electric service supply organization of the nation as a whole, such conflicts would seem to be of relatively minor proportion.

It is more likely that conflict will arise between utility and nonutility agencies over the use of atomic power facilities. It is easy to see that continual refinement of atomic power generation facilities might give rise to demands of large industrial and manufacturing users of electric power for the ownership and control of their own generating facilities. How far down the line AEC would be willing to permit atomic licensing to go would depend on technical policy developments rather than ideological or political differences.

ONE other aspect of the new atomic energy law is worthy of passing attention in connection with atomic power development. That is the amendment put into the law by Senator Humphrey (Democrat, Minnesota) for regulation of licensee operations by the Federal Power Commission.[5]

Actually this provision does not seem to be very important. The reason is that any interstate transmission for public sale of electric energy obtained from atomic power plants, or from any other kind of power plant, would *automatically* fall under the provisions of the Federal Power Act and become subject to Federal Power Commission regulation. There was some confusion, when the Humphrey amendment was first introduced, as to whether it might subject atomic power plant licensees to the *licensing power* of the Federal Power Commission under Part I, or the hydroelectric provision, of the Federal Power Act. This would immediately, of course, subject the atomic licensee to all sorts of additional FPC regulations, including licensee accounting and possible recapture of plants and facilities by the federal government after fifty years.

But even a casual comparison of the Atomic Energy Act with the Federal Power Act indicates that there is no basis for such a supposition. Atomic power plant licensees are under the licensing regulation of the AEC, not the FPC. Any other interpretation would result in hopeless conflict of regulatory authority. It is clear, therefore, that the Humphrey amendment subjects the atomic power plant licensee only to the *regulatory portions* of the Federal Power Act which covers the operation

[5] This appears in § 272, which is as follows: "*Applicability of Federal Power Act.* Every licensee under this act who holds a license from the commission for a utilization or production facility for the generation of commercial electric energy under § 103 and who transmits such electric energy in interstate commerce or sells it at wholesale in interstate commerce shall be subject to the regulatory provisions of the Federal Power Act."

of electric utilities in interstate commerce, regardless of the source of the power generated.

Rôle of the AEC

In conclusion, some mention might be made of the changing character of the Atomic Energy Commission. There has been a good deal of misunderstanding about this, especially during the criticism of President Eisenhower's request that the AEC consider the Dixon-Yates contract. It was charged that a majority of the AEC was opposed to the contract, but agreed to follow the President's recommendation. Opposition Senators contended that the AEC, as an independent regulatory body, should not be subject to the orders of the President or to interference in policy matters.

Of course, the new law expressly provides for contracts, such as the Dixon-Yates proposal, so that particular argument is no longer an issue. But prior to the passage of the law, it is very doubtful whether the AEC was an independent regulatory commission, in the same manner of speaking as the Federal Power Commission or the Interstate Commerce Commission.

As it was set up in the original McMahon Act of 1946, the AEC was essentially an *operating commission,* similar to the Tennessee Valley Authority. As such, under the U. S. Supreme Court ruling in the Morgan Case, 312 US 701, affirming 115 F2d 990, its members were subject to the direction of the President, even to the extent of removal at his pleasure. This distinction between an operating and a regulatory agency of the federal government has an interesting history. Back in the early days of the New Deal, the late President Roosevelt attempted to remove a member of the Federal Trade Commission because of differences of policy. Suit was brought on grounds that the President had no authority under the Constitution to interfere with an independent regulatory commission. This view was upheld by the U. S. Supreme Court in Humphrey's Executor *v.* United States, 295 US 602.

Later, when President Roosevelt tried to remove a member of the Tennessee Valley Authority, another suit was filed. This time, the U. S. Supreme Court qualified its decision in the Humphrey Case by its decision in the Morgan Case. It made a clear distinction between a regulatory commission and an operating agency, holding that TVA was essentially an administrative body and that its directors were ministerial rather than regulatory officials.

Until the enactment of the new atomic energy law, the AEC was apparently an operating or administrative agency, set up to do the job of building atomic bombs and supervising construction, production, and research in connection therewith. But under the new law, AEC has a considerable amount of licensing authority, which would seem to put it into the category of a regulatory commission. The AEC thus emerges as a sort of hybrid agency, since it must perform new *regulatory* duties in addition to its old *administrative* duties.

Just what would happen if the President tried to fire a member of the AEC under the new law? Such a case would probably have to go all the way to the Supreme Court for another decision. Meanwhile, the question of whether the President can make recommendations or issue directives to the AEC in carrying

out its duties, would seem to depend on the particular section of the act involved. For example, under § 91, which deals with the military application of atomic energy, the AEC cannot even make a move in the production or delivery of atomic weapons to the Department of Defense without "the express consent and direction of the President of the United States."

OBVIOUSLY, it will be quite awhile before all the wrinkles of the new act are worked out, section by section, even at the administrative level. After that will have to come clarifying regulations and interpretations, and inevitably court tests on more controversial features. It will probably be 1955 before the AEC will be able to thresh out even the preliminary routine problems involved in issuing the various forms of and regulations for filing application for licenses, etc. But it is clear that not only gas and electric utility industries but other fuel industries as well—coal and oil—have a new federal agency to follow and follow closely. The advent of atomic power promises to make all the difference in the world in their operations. And the AEC will largely control the formation and development of guiding policies during this important period of development and transition.

The True Meaning of the New Atomic Law

"THE *stakes are high! Indeed, the new law passed by the 83rd Congress may well go down in history as the most important law that it enacted. For the day is coming when atomic energy will account for not only our electricity but also our heating, lighting, air conditioning, and many other services now performed by public utilities using such conventional fuels as coal, oil, natural gas, or hydroelectricity. Obviously, the question of who should control the basic source of this magical Genie-of-the-lamp is an all-important one.*

"Our nation stands today at the gateway of a new era, comparable with the beginning of the industrial revolution of the nineteenth century. It might also be compared with the more recent dawn of modern utility services, with the inventions of Edison and Bell, and the Wright brothers, and the automobile. Would we today be able to boast of far and away the best and most utility services in all the world, if we had then taken the road of government monopoly followed by so many nations of Europe? It is a hard question to answer but the very comparison itself speaks volumes.

"Today we have an even harder decision: whether to throw open this new frontier of the atom to pioneering development by private enterprise, just as our federal government threw open the public lands of the West to the homesteaders a half-century or more ago. Or, whether a federal government should hold fast to a monopoly born of war emergency and bury the golden talent of the taxpayers' investment in the sterile confines of state management, planning, and restriction. That is the question posed by the new Atomic Energy Amendments Law of 1954!"

—EXCERPT *from "Telephony Magazine," issue of September 4, 1954.*

The Utility Challenge to Saboteurs

The recently adjourned session of the 83rd Congress passed an important law, known as the Defense Facilities Protection Act of 1954. The purpose of this measure was to authorize the federal government to guard strategic defense facilities against acts of sabotage, espionage, or other forms or acts of subversion. Here is an analysis of the provisions of this legislation as they affect operating utilities.

By T. N. SANDIFER*

In the closing hours of the recently adjourned session of the 83rd Congress, the so-called Defense Facilities Protection Act of 1954 was finally passed by both chambers. Overlooked in the controversy over the proposed outlawing of the Communist party in related legislation, were some provisions dealing with protection of public utility facilities during a war or emergency.

Public utilities get new emphasis in this law to insure their safety and uninterrupted operation in war, or even in any national emergency that would be declared by the President.

The whole concept of what constitutes a "utility" is, in fact, being expanded. Likewise the areas in which additional legal protection would be accorded them.

The government now recognizes that bacteriological, radioactive, and other present-day means of attack hold particular menace for a population that largely cooks its meals by gas or electricity, heats its homes the same way, cools its houses, offices, and industrial plants by artificial means, drinks water from man-made purifying facilities, and depends on rail and air transport, besides highways for movement of goods, and, in war, of troops and munitions.

Old-line public utilities have been recognized since World War I as prime en-

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emy targets, and accorded protection that has varied with the times. They have likewise stood well in front, when priorities were put on essential materials for operation.

ANALYSIS of the existing laws on sabotage, however, has convinced the Department of Justice that these do not meet the need for modern-day protection of utilities of whatever kind, against bacteriological or chemical sabotage. Accordingly, the Attorney General sent to both House and Senate, the drafts of proposed amendments aimed specifically at these dangers. He stated that his request for this legislation does not contemplate any particular instance, or threat; he made it clear, nevertheless, that revelation of the potentialities in bacteriological and radioactive weapons in the hands of saboteurs spurred his request. He suggested, in fact, that "early action" is desirable on these drafts.

These amendments, subsequently enacted, specifically modernize Chapter 105, of Title 18, of the U. S. Code, relating to sabotage. Throughout, the language gears the tightened provisions to utilities of whatever nature directly serving war installations, war industries, and related activities. The terms are drawn so broadly, however, as to cover virtually all public utility operations; they do not modify any current provisions applying to old-line utilities, rather, these are tightened, and broadened in scope.

The definition of a "war utility" is spelled out anew. In time either of war, or of a national emergency which could be declared by the President under the proposed revision, the definition would comprise all electric light and power, all steam or pneumatic power, dams, reservoirs, aqueducts, water and gas mains and pipes, related structures and buildings, telephone and telegraph plants; poles, wire, fixtures, wireless stations, and all related buildings and equipment. The definition applies specifically to such facilities furnishing heat, light, power, communications, water, etc., to any war premises, to the armed forces, etc. It obviously would extend to all public utilities since, in so many areas, these interdependently service civilian and military or other defense activities. The definition adds certain facilities. Airfields, air lanes, the installations for their operation, are now included. Furthermore, these are covered both in this country "and elsewhere." The definition adds air conditioning; with it, the water supply, power, equipment of whatever kind used for its operation, where it serves a defense activity.

All transportation, of course, is covered in the revision, as are docks, bridges, terminal facilities of all kinds, vehicles, boats, and other material or equipment.

THE law extends its penalties beyond actual protection of these various facilities. There is a new definition of "war material" and severe penalties would attach to deliberate production of faulty material, or of its destruction. As the law is redrafted, the various definitions are made interlocking; thus, under war material would come fuel intended for "or adapted to" use in defense or war, and the same commodity is included under a definition of "national defense material." Added to these definitions under the proposed changes would be air and water.

The amendments go further than some provisions in the former law, and extend the protection accorded these various fa-

cilities beyond the shores of the United States; and, in addition, to similar facilities of any nation "associated" with the United States in a war, or against a common enemy. Just how these latter provisions will be carried out is not described in the draft, and doubtless some further explanation will be in order as the acts are administered.

The penalties would apply especially to such new forms of sabotage as contamination or infection, of war materials, war utilities, equipment, and related items, even in the course of production.

"This proposed amendment," said the Attorney General, as did the definition amendments, "contemplates the possibility of sabotage by radioactive, biological, or chemical agents."

The Emergency Powers Act extension of July 3, 1952, contains many of the proposed amendments, but only on a temporary basis. The Attorney General's action would effect their permanent enactment into law.

As a side light on the recently enacted amendments, their language would appear to cut squarely across the matter of what to do with Communist-led, or Communist-inspired labor groups that might contain sabotage agents, or be the means of getting them into striking distance of vulnerable utilities. Penalties for any of the violations enumerated in the amendments are so severe that assuming such agents were not weeded out before they could act, they have to be fanatical indeed, to carry out their plans.

In this connection, the Attorney General is still aggressively pushing for broad legalization of wire tapping, although the 83rd Congress failed to act on that recommendation.

Already he has instigated liberalization of the present laws on wire tapping, which were picked up by a House committee but failed to get final action. These amendments would permit court use of wire-tap evidence in treason and espionage cases. We will probably hear more about them in the 84th Congress next year.

THE Federal Communications Act of 1934 specifically banned such interference with private communications. In 1941, first President Roosevelt, and later his then Attorney General, who is now a member of the Supreme Court, Justice Jackson, treated "monitoring of telephone communications" as it was called, on a basis of wartime expediency. A later Attorney General, Biddle, said he did not believe wire-tapping authority should end with the emergency of the Second World War. In fact, every Attorney General over the past twenty-two years has favored and authorized wire tapping by federal officers in security cases, as the present Attorney General recalls.

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¶ "IN *the closing hours of the recently adjourned session of the 83rd Congress, the so-called Defense Facilities Protection Act of 1954 was finally passed by both chambers. . . . Public utilities get new emphasis in this law to insure their safety and uninterrupted operation in war, or even in any national emergency that would be declared by the President.*"

URGING the amendment on the subject for House action, the present Attorney General asked, "When will the enemy strike next? Who will be the next victim? What government secret will be stolen? Where are Communist fugitives hiding?

"All these questions have been discussed freely over the telephone by Communist conspirators who were safe in the knowledge their own words could never be used against them in court."

Wire tapping, he concedes, has long been a matter of public concern, and even of "raging controversy."

Telephone companies apparently are confronting a new phase of this controversy shortly, if such a law ever becomes effective. However, the Attorney General has promised that use of wire-tap evidence will be confined solely to proceedings by the government against "those criminals who seek to subvert our country's welfare."

As the proposed law was drawn, certain safeguards were thrown around the matter of getting an actual wire tap, but the Attorney General indicated that he is somewhat impatient with proposals for obtaining a court order first. Secrecy of the wire tap, he holds, is essential.

On this point, a task force of the communications industry field is working closely with the Business and Defense Services Administration on a general program of industrial defense. This program goes beyond any narrow phase of the defense situation, and is aimed at getting all vital defense industries in readiness against a future emergency.

Representative technical groups from each of the industries concerned have been named, or are now being organized, to develop plant protection and procedure for maintaining vital operations and essential production in event of enemy attack, sabotage, or even civil disaster.

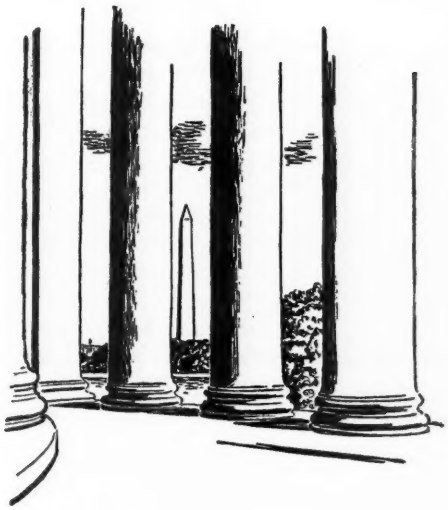
This latter, broad program of industry preparedness is apart from the series of legislative proposals which the Department of Justice has put before Congress, but all are related, in that they seek to meet the same general problem.

Much of what the communications task group is doing is "classified" at present. However, it is studying the entire communications industry with respect to the essentiality and critical category of each phase. Protection of plant and equipment is an over-all segment of the group's work in the field of postattack planning.

The committee is not ready to report, as yet. In fact, some of its opposite-number industry committees are still in the formative stage.

SUMMING up, it is evident from the scope of legislation now in prospect or already in law, that heat, light, and power facilities will be given protection against direct attack by germ warfare, damage of plant or equipment physically, disruption by faulty material deliberately contrived, or other sabotage; power dams, public or private, drinking water, and industrial reservoirs; public air-conditioning installations; all forms of transportation, not only within the United States but where carrying U. S. and allied forces or material, abroad also; wire networks carrying communications or electric current; gas mains, pipelines; terminal facilities of all kinds; a broad category of buildings and premises, all will be accorded the protection of a modernized legal fence system.

Washington and the Utilities



Atomic Bill Becomes Law

PRESIDENT Eisenhower waited for his quick trip on August 30th back to Washington from his brief summer vacation stay in Denver to sign the controversial Atomic Energy Amendments Bill of 1954. Returning to the nation's capital only for a few hours to address the national convention of the American Legion, the President took the occasion at the White House signing to commend the legislation.

Key provisions of the new law are designed to promote the development of a private atomic power industry. Other important features clear the way for wider international co-operation in using atomic energy for war and for peace. The law also gives clear sanction to the controversial arrangement under which the President ordered the AEC to buy private power from the Dixon-Yates utility group for delivery to the Tennessee Valley Authority.

The President said the law will strengthen the free world's security and speed the day when nuclear force "will be wholly devoted to the constructive purposes of man." The law lifts the government's monopoly on atomic development, clearing the way for private industry to own and operate atomic power reactors. It also authorizes U. S. sharing of information on the uses of atomic weapons and the know-how of building atomic power reactors.

The President signed the new law at a ceremony attended by members of the Atomic Energy Commission and of the House-Senate Atomic Energy Committee, which drafted the legislation. In a statement, the President said: "As I sign this bill, I am confident that it will advance both public and private development of atomic energy—that it will thus lead to greater international strength—and that programs undertaken as a result of this new law will help us progress more rapidly to the time when this new source of energy will be wholly devoted to the constructive purposes of man."

MEANWHILE, the controversy over the Dixon-Yates power contract continued at the political level. Democratic National Chairman Stephen A. Mitchell criticized what he called continued delay in making public the surrounding circum-

stances concerning the proposal to have private interests build a power plant at West Memphis, Arkansas, to supplant TVA's power needed for services direct to AEC at other locations.

Representative Cole (Republican, New York), chairman of the Joint Committee on Atomic Energy, had originally scheduled a hearing on the Dixon-Yates contract for September 2nd. Mitchell had been asked to appear and had accepted. But the September date was later canceled with the assurance that the committee would have a public hearing within a short time, possibly a week or ten days after the original date.

Chairman Cole is anxious to get on with the Dixon-Yates contract, pointing out that, under the new AEC law, a majority of the committee may agree to the contract for supplanting TVA power to be used by AEC without awaiting the full 30-day review period. Cole says that his committeemen are, by now, familiar with the terms of the act and that speed is necessary to avoid delay in construction during the next spring flood season. He feels that such delay can be avoided if prompt approval of the contract allows the privately owned utility group to begin preliminary work right away on a protective levee.

Chairman Mitchell will doubtless be on hand to give the postponed hearings, when finally held, political color.

Phillips Ruling Still Causing Stir

PRESSURE continues to mount among natural gas producers over the so-called "price freeze" order of the Federal Power Commission. A number of petitions have been filed by gas-producing companies requesting FPC to reconsider the orders issued on the basis of the U. S. Supreme Court mandate resulting from the Phillips Petroleum Company Case. Main line of arguments note that the new FPC rules, in Order Nos. 174 and 174-A, were issued without hearings and that they exceeded requirements of the Phillips Case mandate.

The names of some of the complaining gas producers were: Magnolia Petroleum Company, Ohio Oil Company, Humble Oil & Refining Company, American Republics Corporation, Houston Oil Company of Texas, Union Producing Company, Gulf Oil Corporation, Gulf Refining Company, George J. Darnelle of California, Tidewater Associated Oil Company, Kerr-McGee Oil Industries, Inc., Oil & Gas Property Management, Inc., and Llano Grande Corporation.

One petition, filed with FPC by Continental Oil Company, takes exception to the "retroactive" features of the FPC order. The company alleged that the order, issued without notice, nullifies valid contracts existing prior to the court order, compels violation of state conservation laws, and forces independent producers of natural gas to become regulated public utilities against their will.

THE Continental Company suggested that the independent producers be permitted to continue gas sales under present contracts until the commission holds the "necessary" hearings and issues "lawful and proper" rules and regulations. The Texas Independent Producers & Royalty Owners Association also petitioned FPC for suspension of the orders, pending a hearing. TIPRO wants FPC to "determine producer-by-producer whether they are, in fact, 'natural gas companies' within the meaning of the Natural Gas Act." The association has more than 4,000 members, including 2,300 independent producers, a large percentage of the estimated 4,100 total over which the FPC order seeks to extend jurisdiction.

Wire and Wireless Communication

AT&T Attorney Reviews Regulatory Trends

THERE is a definite movement toward making some compensation for inflation in telephone rate cases. This is the optimistic conclusion of G. Wallace Bates, general attorney of the American Telephone and Telegraph Company, who reviewed some recent developments in telephone regulation in an address to the Section of Public Utility Law during the national convention of the American Bar Association in Chicago last month.

The movement is certainly not without its dissenting voices, Bates admitted, but added that "when the states which have made such compensation during the past year are added to those which have taken similar action in previous years, the list is impressive." Bates cited action taken in North Carolina and Delaware during the past year which in effect adds those two states to the growing column of "fair value" states.

Viewed from the standpoint of the utilities, Bates continued, the movement has been much too slow and halting. The main reason for this is continued adherence by many regulatory commissions to the net investment rate base, he said. "In the past, proponents of prudent investment or original cost rate bases commonly contended that the rate of return could be increased or decreased with changing price levels and that consequently no adjustment in the rate base is necessary. Their contention was that only one factor should be adjusted and not two. Thus, the Federal Power Commission in its brief in the Hope Case argued that with fluctuations in the price level, common stockholders may be adequately protected by adjusting the rate of return. While this contention regarding the possibility of adjustment in the rate of return was made by the proponents of prudent investment rate bases before substantial inflation had taken place, most of such proponents have recently been silent on that subject." Bates continued:

> Even though the proponents of a changing rate of return to reflect changing price levels have recently been silent, during the course of the last two or three years we have noticed a tendency for commissions gradually to increase the rates of return allowed in Bell system rate cases. . . .

He cited recent cases in Oregon, Colorado, North Dakota, Rhode Island, and California as examples of this tendency.

BATES acknowledged that the Bell system companies have suffered a num-

ber of unfavorable decisions. In Michigan, the commission denied the company's claim for additional revenues to compensate for economic depreciation. The state supreme court in New Mexico, in a decision last May involving Mountain States Telephone & Telegraph Company, held that no single formula need be used in arriving at the rate base and declared that investors cannot be insured against the effects of inflation. A January decision of the New Jersey commission found that an average net investment rate of return is fair, thus adhering to its previous decisions. The latest large rate increase case, involving the New York Telephone Company, found the state commission declaring that there is nothing in New York statutes or decisions which guarantees utility stockholders insurance against the effect of economic forces.

With respect to regulatory lag, Bates sees some improvement. He stated:

> During the past year commissions generally have been more prompt than in earlier years in rendering decisions in Bell system rate cases. Several commissions have rendered rate orders within three or four months of the time of filing for new rates. However, while there has been some progress on this score, during the past year we have had one decision which was not rendered until nineteen months after the case was filed. . . .

Such failures of the regulatory process are the exception rather than the rule, Bates said, although the average delay in obtaining relief is still a serious problem.

DESPITE setbacks and disappointments over the last year, Bates indicated that the Bell system will continue its efforts to secure recognition of the need for compensation of lost value in future rate cases.

REA-industry Group

A JOINT telephone industry committee, created by the Rural Electrification Administration, will have its first meeting in Washington, D. C., in the near future. The advisory group, composed of representatives of both co-operative and commercial-type telephone borrowers, was organized to confer with REA officials from time to time on problems of mutual interest to REA and its borrowers.

The group includes nine independent telephone men, six co-op representatives, a Bell system engineer, a Wisconsin Public Service commissioner, and a communications consultant. Names of the members are: L. E. Armfield, consultant, Fargo, North Dakota; Glenn Bergland, Winnebago (Iowa) Co-operative Telephone Association; John A. Brady, Sr., LaFourche (Louisiana) Telephone Company; Joseph K. Galloway, Winter Park (Florida) Telephone Company; James L. Capel, Champaign (Illinois) County Telephone Company; Warren B. Clay, president of the United States Independent Telephone Association; Daniel B. Corman, Northeastern (Kentucky) Telephone Company, Inc.; Ross Gault, W.E.G. Dial (Kansas) Telephone, Inc.; Walter Harrison, Georgia Electric Membership Corporation; William C. Henry, Northern Ohio Telephone Company; J. Lee Keiger, Sr., Oldtown (North Carolina) Telephone System, Inc.; Orla L. Moody, American Telephone and Telegraph Company; Frank Richmond, Twin Lakes (Tennessee) Telephone Co-operative Corporation; Riggs Shepperd, Medina (Texas) Electric Co-operative, Inc.; Jack E. Smith, Mecklenburg (Virginia) Electric Co-operative; George P. Steinmetz, Wisconsin commissioner; C. J. Stover, Skagit Valley (Washington) Telephone Company; C. A. Thiessen, Mid-Rivers (Montana) Telephone Co-operative.

Financial News and Comment

By OWEN ELY

New York Commission Refuses To Recognize Inflation Factor

On Angust 5th the New York Public Service Commission denied in full the application of the New York Telephone Company for an increase in rates in the amount of $68,850,000. The commission fixed as a rate base the original cost of the property less depreciation. It held that the company's present earning rate (a little below 6 per cent) was within the "zone of tolerance" and that slight variations above or below this mark did not justify changes in rates.

In connection with the rate base, the order indicated that tax accruals and other funds furnished by subscribers (represented by current liabilities) should be offset against the requirements for cash working capital and the allowance for materials and supplies.

The company had filed its request for a rate increase of about 10 per cent last November and hearings were begun January 5th. In reviewing the history of telephone regulation in New York state, the commission pointed out that rates were materially increased in 1930 after nearly ten years of litigation, but there was a reduction of about $4,000,000 in 1936. The next decision was in May, 1950, when the company asked for $63,500,000 and received an increase of $48,500,000, or about 11 per cent. In January, 1951, and subsequently, another increase of $57,000,000 was requested; the company initially received nothing, but later presented evidence of higher taxes and wages and received an increase of $20,700,000 (about 5 per cent). Thus, rates now in effect are about 16 per cent higher than those in effect prior to World War II.

The commission held firmly to an original cost rate base, less accrued depreciation. The company had contended that a theoretical reserve requirement should be used rather than the actual reserve, in order to recognize the changing value of the dollar. This idea had been rejected in a previous opinion (Case 14131 at pages 17, 18, and also Case 15235 at page 9), and the commission would not change its view.

The company contended that the word

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"value" as used in the statute implied a fair value standard and offered a substantial amount of evidence in favor of using cost of reproduction as a basis for value, but the bulk of this testimony was excluded. The commission remarked that this was the same problem considered in Case 15235, and stated "it is inconceivable that the legislature of this state intended that telephone rates should be fixed on any different standard than those of electric, gas, or water utilities."

The commission said it could not find any "occult or hidden intention" of the legislature with respect to the word "value" in the telephone statute. The company had urged that the telephone business is much more volatile than the electric power business, but the commission was not impressed with this argument, holding that this strengthened rather than weakened the case for a fixed rate base.

It also found (although opinions may differ in degree on this) that "the great majority" of regulatory commissions use an original cost rate base, the principal exceptions being states where the law requires some other standard. Even in the latter states, the opinion claims, the commissions have given "very great weight" to original cost.

A DECISION by the supreme court of Utah was quoted, in which the court held that while the local statute was enacted in 1917 and at this time "constitutional substantive law required adherence to the fair value principle of rate making . . . the removal of the constitutional barrier erected by Smyth *v.* Ames unleashed the power of the commission and permitted it to expand into fields previously restricted by the earlier court decision. . . . It must be assumed that the legislature contemplated that the concept of that which is 'just and reasonable' might change with social trends." This argument hardly seems to have current validity since the U. S. Supreme Court in its later decisions has given the state commissions wide discretion as to their philosophy of rate regulation. The burden today rests on the commissions themselves to determine the meaning of the word "value," when this is not defined in the statute. A commission which refuses even to consider the element of inflation in the rate base and in operating expenses is following a narrowly traditional legislative philosophy.

THE commission's arguments on inflation may be summarized as follows: First, the investment appeal of utility equities is largely based on the investor's knowledge that he is "entitled to earn upon the dollars committed to the enterprise and that at no time will he be required to earn on a lesser amount than that of the investment actually made. Granted that the prospect of a price collapse is slight, who is so wise as to contend that cost levels will forever remain as high as in the early 1950's?" (In this connection it may be remarked that the commission has not always adhered firmly to original cost. If we remember correctly, the idea of "prudent investment" as applied by Chairman Maltbie to the Consolidated Edison plant account resulted in a figure below original book cost. Moreover, the SEC has required the writing off or amortizing of large amounts "actually invested" by security holders, under the doctrine of "aboriginal" cost.)

Second, the danger of runaway inflation is now less than when the company last appeared before the commission. The commission admitted that "if inflation became completely uncontrolled, all the standards of the past would become outmoded and some new standard would be required, if the extinguishment of capital savings is

to be prevented. That point, however, has not been reached in this country." The commission's ideas regarding the relevance of the inflation argument appeared, to this observer, somewhat inconsistent. Thus, at one point it was argued that the investor is not entitled to "special protection against the loss in the purchasing power of his dollars committed to the enterprise. . . . We find nothing in our statutes, or the reported decisions, which guarantees to the investor in utility equities insurance against results of economic forces or even the political policies of any national administration."

However, in another passage, the commission admitted that "in a rate case we must in like manner consider the cumula-

ELECTRIC UTILITY STATISTICS AND RATIOS

Operating Statistics	*Unit*	*Latest Month*	*Latest 12 Mos.*	*Per Cent Increase Latest Month*	*Per Cent Increase Latest 12 Mos.*
Output KWH—Total (June)	Bill. KWH	38.9	451.6	5%	9%
Hydro-generated	"	9.6	—	5	—
Steam-generated	"	29.3	—	5	—
Capacity (May)	Mill. KW	95.3	—	—	52
Peak Load (May)	"	74.0	—	5	—
Fuel Use (February): Coal	Mill. Tons	9.3	—	2	—
Gas	Mill. Mcf	107.8	—	2	—
Oil	Mill. Bbls.	4.3	—	D30	—
Coal Stocks	Mill. Tons	45.3	—	7	—
Customers, Sales, Revenues, and Plant (May)					
KWH Sales—Residential	Bill. KWH	6.1	74	10%	12%
Commercial	"	4.5	55	7	8
Industrial	"	11.9	149	D7	2
Total, Incl. Misc.	"	29.1	359	—	4
Customers—Residential	Mill.	32.6	—	3	3
Commercial	"	4.5	—	2	2
Industrial	"	.5	—	2	2
Total, Incl. Others	"	40.0	—	3	3
Income Account—Summary (May)					
Revenues—Residential	Mill. $	173	2,090	9%	10%
Commercial	"	121	1,466	7	7
Industrial	"	138	1,702	D3	4
Total, Incl. Misc. Sales	"	478	5,781	4	7
Sales to Other Utilities	"	33	423	4	2
Misc. Income	"	15	231	D12	—
Expenditures—Fuel	"	72	997	D5	5
Labor	"	98	1,171	4	5
Misc. Expenses	"	74	913	3	5
Depreciation	"	51	590	11	12
Taxes	"	114	1,347	5	7
Interest	"	32	365	11	12
Amortization, etc.	"	—	—	NC	NC
Net Income	"	85	1,065	4	7
Preferred Div. (Est.)	"	12	138	7	7
Bal. for Common Stk. (Est.)	"	73	927	4	8
Common Dividends (Est.)	"	53	635	10	8
Electric Utility Plant (May)	"	26,245	—	11%	—
Reserve for Depreciation and Amort.	"	5,085	—	8	—
Net Electric Utility Plant	"	21,160	—	11	—
Life Insurance Investments (January 1st-August 14th)					
Utility Bonds	"	—	599	—	29%
Utility Stocks	"	—	184	—	187
Per Cent of All Investments	"	—	11%	—	28

D—Decrease. NC—Not comparable.

tive effect of current economic forces upon the company whose rates we are fixing. Certainly the investor considers these before committing his money to the enterprise. No doubt, there are investors who in times of inflation regard certain industrial stocks as a greater hedge against the perils of inflation than utility equities. Likewise, there are others who in times of declining prices regard utility investments as a hedge against deflation."

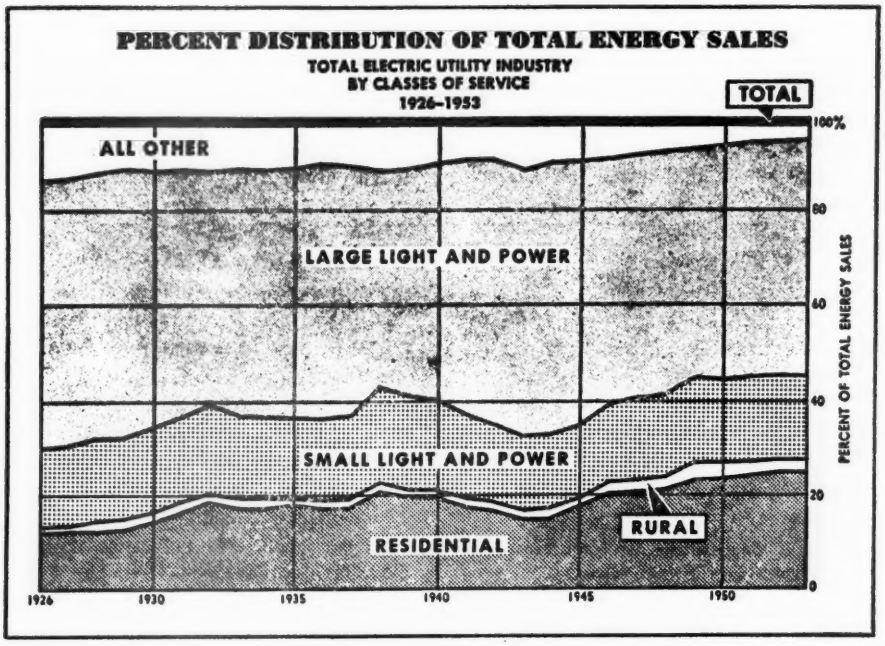
THIRD, the commission held that, even granting the validity of considering reproduction cost in the rate base, this factor is becoming less important, since the ratio of reproduction cost to actual cost is now declining as a result of the flattening of the price curve, retirement of low-cost property, and large additions at current prices. While this argument may have some weight, it can be challenged whether it justifies the refusal of the commission to consider cost of reproduction as an element of fair value. It ignores the irretrievable reduction in earnings which is suffered by the corporation on the portion of the plant concerning which the disparity still exists and may seem much like a doctor refusing to prescribe for a patient, with the remark "he may soon be well anyway."

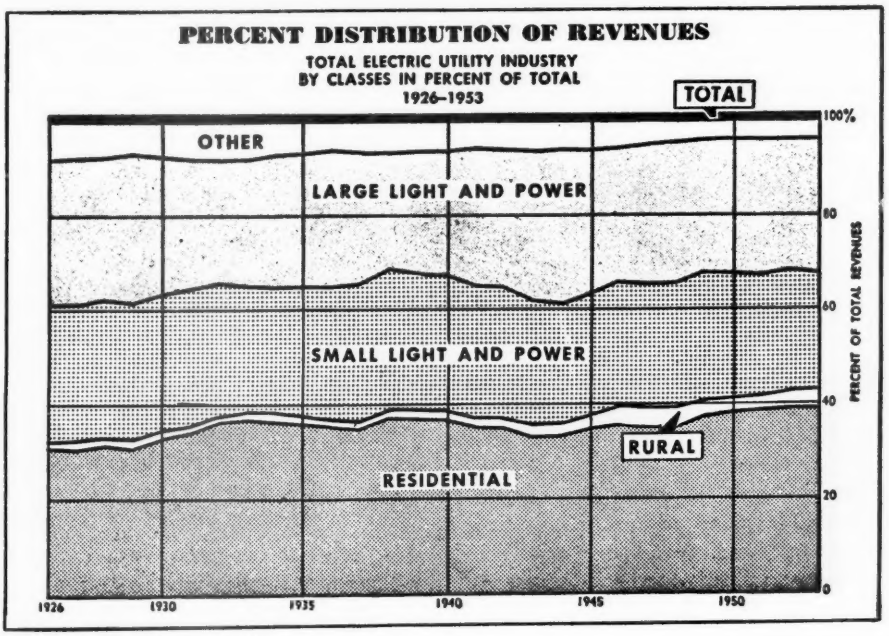
Fourth, the commission also held that "with the use of an investment rate base, the property account is rarely in dispute." The commission did not want to venture into what it evidently considered the treacherous field of "fair value." Other commissions have not hesitated to attempt the chore of setting up a fair value rate base through inclusion of reproduction cost estimates, based on established cost indices; the Ohio commission has made considerable progress in developing this technique. To contend that original cost is more accurate and more easily determined than fair value is not, on its face, a responsive reply to the contention that it is no longer a basis for "just and reasonable" rates.

Fifth, the commission held that "value" is not innate but is an end result dependent on earnings, which in turn depend on rates. Hence, it contended, the process could not be reversed with rates being made dependent on value. It held that the value of a commercial property is usually measured by its capitalized prospective earnings. While utilities are not competitive in the usual sense, they compete for investment funds. "If the rates are fixed too low and the income is insufficient," the commission remarked, "there will be a flight of capital from the telephone industry to other types of investment. The converse is equally true. 'Value' as used by the legislature is the end result and does not, as contended by the company, constitute the point of departure."

There might be some question as to whether the commission's decision has not been a factor recently in making American Telephone and Telegraph stock slightly less attractive currently in investors' minds than the stock of leading electric power and light companies; American Telephone yields (at 173) 5.2 per cent, while "growth" electric utilities yield about 4.1 per cent, and the average recent yield for 135 electric utilities was 4.9 per cent. It would, of course, be an exaggeration to call this a "flight of capital," but investors' current preference for stocks of the electric utilities seems evident.

REGARDING rate of return, the commission adhered to the traditional 6 per cent rate as compared with the contention of company officials and expert witnesses that it is entitled to a return in the range of 7.75-9.20 per cent. Witnesses against the company assumed (directly or indi-





Source—Edison Electric Institute

rectly) that the debt ratio could be increased to 45 per cent or more from the current ratio of 36 per cent (as compared with the company's objective of 33 per cent. There was also a difference of opinion regarding dividend pay-out. Opposition witnesses felt that about 80 per cent would be safe, but a company official contended for earnings which would permit a pay-out of only 65 per cent.

The commission apparently felt that maintenance of the $9 dividend rate of American Telephone and Telegraph, which is the keystone of the Bell system's fiscal policy and has enabled it to raise billions of dollars for construction of needed facilities, is not its concern. "It seems that the company asks this commission . . . to adopt a regulatory process which insures it and its equity investors . . . a complete protection against any loss which economic conditions may threaten. . . . It asks for its stockholders not only what is virtually a bondholders' assurance of steady income, with more than twice the bondholders' annual percentage, but also a hedge against inflation which is beyond the bondholders' dreams. This is not our conception of the purpose of regulation nor . . . do we believe such a result possible. . . . We appreciate that a utility must earn an adequate amount to make its securities attractive in the current money market. When that test has been met our obligation in that respect has been discharged."

THE commission stated that American Telephone and Telegraph wants to increase its consolidated earned surplus (not including capital surplus) from about $17 a share to $30 or $40, as a reserve to maintain the $9 dividend; and at the same time to maintain a capital structure with debt not over one-third and stock about two-thirds.

But the commission evidently considers such a capital structure as a needless luxury. It pointed out that to obtain an extra $1 for AT&T dividends or surplus a subscriber's bill would have to be increased by $2.30 for every such dollar, because of the inroads of income and excise taxes. (There are about as many shares of AT&T stock as there are Bell telephones in service.) "If, however, the number of shares remain constant and the debt is increased, there is no dilution of surplus per share and the cost is the interest rate which is deductible for purpose of taxation and, therefore, only a small fraction of the cost of equity. . . . We appreciate, of course, that there comes a point when a debt ratio can become dangerously large. . . . Too high a debt ratio as a long-term policy may well be as expensive as a too low one. It is likewise clear that the protection of the stock lies not alone in the surplus per share but in the ability to finance temporarily by additional debt, thereby accomplishing a tax saving which goes to the benefit of the common stock and prevents a further dilution of the amount of surplus per share. It would appear that the basic error in the company's position lies in the fact that each of the items for which it contends constitutes a safeguard as to the others, and that in the presentation it fails to realize their cumulative effect."

Thus, the commission's most important argument appears to be that the company is ultraconservative in its policy with respect to capitalization. Rather than seeking higher rates it should endeavor to save taxes, by financing new construction through debt rather than common stock. Thus, the earnings per share would be automatically increased and the company could build up its surplus more rapidly.

IN passing this judgment on the company's long-term policy, the commission does not cite any analytical material

in its decision, to justify this conclusion. Obviously, a higher debt ratio would lead to greater fluctuation in earnings per share, although the average level of earnings would be somewhat higher. But it seems to this writer that the average buyer of telephone stock is mainly interested in the stability of earnings rather than the amount of surplus—since companies do not always avail themselves of surplus when earnings fail to cover dividends. Many investors have confidence in the system's ability to maintain the $9 rate, but this confidence may be shaken if treatment by regulatory bodies is adverse. As a matter of fact, the share record has not been too reassuring: The $12.57 earned by the parent company in 1929 has never since been equaled and in over half of the last twenty-three years the company has failed to earn the $9 dividend. In the postwar period parent earnings have averaged only $9.19—an extremely small margin of safety considering the fact that this has been the most prosperous period in the nation's history. The Bell system's profit margin has steadily declined over the years. In 1929 the system was able to bring down to gross income (the amount available for all investors) some 28 per cent of system revenues, but in 1953 the ratio was only 18 per cent.

DURING the depression period of 1929-34 Bell system consolidated share earnings per American Tel & Tel share dropped nearly two-thirds (from $15.22 to $5.96), and parent company earnings declined nearly one-half (from $12.57 to $6.52). If the company had financed with a high debt ratio (as some of the independent telephone companies did) it might have risked reorganization and certainly would have had considerable difficulty in maintaining its $9 dividend rate through the 1930's. The commission's decision seems unfair in not giving some weight to the inflation factor and in failing to recognize that in depression times, when the need for increased revenues is greatest, it is usually most difficult to increase rates.

The New York Telephone Company on September 2nd filed a motion with the commission for a rehearing in the rate case.

Historical Trend of Electric Utility Sales and Revenues

DURING the period 1926-53 there has been a sharp increase in the proportion of residential and rural kilowatt-hour sales to total sales of electricity, as illustrated in the accompanying chart, page 333. The percentage distribution of revenues has shown less change, due to the continued decline in residential revenues per kilowatt-hour. The proportion of rural use gained rapidly during 1926-49 but has declined in subsequent years. Following are the comparisons:

	Percentages of U. S. Total			
	KWH Sales		*Revenues*	
	1926	*1953*	*1926*	*1953*
Residential	12.2%	25.3%	31.5%	39.1%
Rural	1.1	2.5	.8	3.0
Commercial ...	16.9	18.0	28.1	25.7
Industrial	57.0	49.5	31.3	27.7
Other	12.8	4.7	8.3	4.5
Total	100.0%	100.0%	100.0%	100.0%

The decline in the use of electricity by "others" is due principally to the fact that electric trolleys have been gradually abandoned in favor of busses; on the other hand, the use of electricity by public authorities increased from .4 per cent in 1926 to 2.3 per cent in 1953.

The increase in residential electricity, at the expense of other sales, has doubtless benefited the utilities, since it is generally assumed that there is a greater margin of profit in this business than in industrial sales, the latter sometimes being priced competitively.

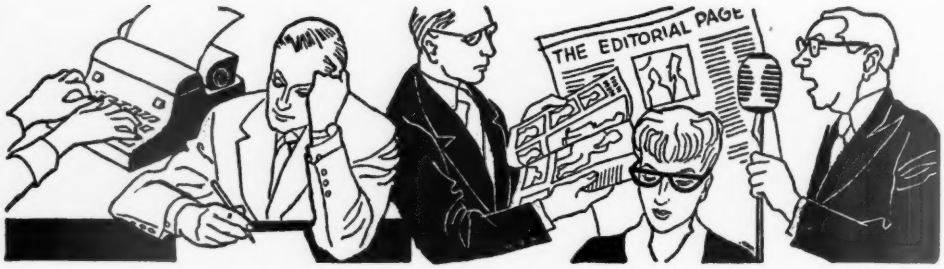
RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

1953 Rev. (Mill.)			8/25/54 Price About	Divi-dend Rate	Approx. Yield	Share Earnings* Cur-rent Period	% In-crease	12 Mos. Ended	Price-Earns. Ratio	Div. Pay-out	Moody Bond Rating
		Pipelines									
$ 3	O	Alabama-Tenn. Nat. Gas	15	$ .60	4.0%	$1.37	3%	June	10.9	44%	—
12	O	East. Tenn. Nat. Gas	9	—	—	.54	26	Mar.	16.7	—	Ba
38	S	Mississippi River Fuel	46	2.40	5.2	3.36	29	June	13.7	71	—
48	S	Southern Nat. Gas	32	1.60	5.0	1.96	—	June	16.3	82	A
133	O	Tenn. Gas Trans.	26	1.40	5.4	1.57	28	Mar.	16.6	89	A
137	O	Texas East. Trans.	24	1.40	5.8	1.62	22	June	14.8	86	—
63	O	Texas Gas Trans.	20	1.00#	5.0	1.53	11	June	13.1	65	—
59	O	Transcontinental Gas	25	1.40	5.6	2.04	38	June	12.3	69	—
		Averages			5.1%				14.3	72%	
		Integrated Companies									
118	S	American Natural Gas	47	$2.00	4.3%	$3.73	12%	June	12.6	54%	—
18	O	Colorado Interstate Gas	51	1.25	2.5	1.90	NC	Apr.	—	66	—
232	S	Columbia Gas System	15	.90	6.0	.87	24	June	17.2	103	A
9	O	Commonwealth Gas	97	(a)	4.0a	.50	28	Dec.	18.0	—	—
9	A	Consol. Gas Util.	17	.75	4.4	1.14	16	Apr.	14.9	66	—
191	S	Consol. Nat. Gas	67	2.50	3.7	5.27	39	June	12.7	47	Aaa
111	S	El Paso Nat. Gas	41	1.60	3.9	2.63	—	June	15.6	61	—
32	S	Equitable Gas	25	1.40	5.6	1.76	D9	Mar.	14.2	80	A
10	O	Kansas-Neb. Nat. Gas	27	1.20	4.4	1.87	14	Dec.	14.4	64	Baa
72	S	Lone Star Gas	28	1.40	5.0	1.66	D5	June	16.9	84	—
20	S	Montana-Dakota Utils.	23	.90	3.9	1.36	62	June	16.9	66	Baa
14	O	Mountain Fuel Supply	24	1.00	4.2	1.47	NC	June	16.3	68	A
49	A	National Fuel Gas	21	1.00	4.8	1.52	23	June	13.8	66	Aa
4	O	National Gas & Oil	9	.60	6.7	.98	42	Dec.	9.1	61	Ba
66	S	Northern Nat. Gas	45	2.00	4.4	2.67	6	June	16.9	75	A
32	S	Oklahoma Nat. Gas	23	1.20	5.2	1.33	10	June	17.3	90	—
95	S	Panhandle East. P. L.	73	2.50#	3.4	4.93	D1	Dec.	14.8	51	A
130	S	Peoples Gas Lt. & Coke	166	6.00	3.6	11.26	22	June	14.7	53	A
23	O	Southern Union Gas	20	.90	4.5	.99	2	Mar.	20.2	91	A
209	S	United Gas Corp.	31	1.50	4.8	2.13	14	June	14.6	70	A
		Averages			4.4%				15.3	74%	
		Retail Distributors									
20	A	Alabama Gas	25	$1.28	5.1%	$1.95	52%	June	12.8	66%	Baa
32	O	Atlanta Gas Light	24	1.20	5.0	1.78	D6	Mar.	13.5	67	A
4	O	Bridgeport Gas Light	25	1.40	5.6	1.69	—	June	14.8	83	—
4	O	Brockton Taunton Gas	12	.40	3.3	.54	23	Dec.	22.2	74	—
46	S	Brooklyn Union Gas	33	1.70	5.2	2.68	83	June	12.3	63	A
28	O	Central Elec. & Gas	14	.80	5.7	1.10**	13	Mar.	12.7	73	—
2	O	Fall River Gas Works	42	1.40	3.3	2.74	230	June	15.3	51	—
44	O	Gas Service	25	1.24	5.0	1.67	NC	Feb.	15.0	74	—
6	O	Hartford Gas	38	2.00	5.3	2.42	17	Dec.	15.7	83	—
14	O	Houston Nat. Gas	25	1.00	4.0	2.02	53	July	12.4	50	—
12	O	Indiana Gas & Water	29	1.40	4.8	2.15	13	June	13.5	65	A
5	A	Kings Co. Lighting	15	.80	5.3	1.22	23	June	12.3	66	Baa
33	S	Laclede Gas	11½	.60	5.2	.90	D5	May	12.8	67	A
27	O	Minneapolis Gas	26	1.20	4.6	1.63	21	June	16.0	74	—
11	O	Mississippi Valley Gas	23	1.00	4.3	1.83	D18	Mar.	12.6	55	—
6	O	New Haven Gas	29	1.60	5.5	1.87	31	Dec.	15.5	86	—
54	O	Northern Illinois Gas	21	.80	3.8	.77	NC	May	—	104	A
162	S	Pacific Lighting	37	2.00	5.4	1.93	D13	June	19.2	104	—
11	O	Portland Gas & Coke	22	.90	4.1	1.61	D5	June	13.7	56	Baa
3	A	Rio Grande Valley Gas	3	.12	4.0	.23	5	June	13.0	52	—
6	O	Seattle Gas	12	.40	3.3	.77	48	Mar.	15.6	52	Baa
7	O	South Jersey Gas	23	1.20	5.2	1.51	23	June	15.2	79	Baa
5	O	Springfield Gas Light	34	1.80	5.3	1.92	D1	Dec.	17.7	94	—
22	S	United Gas Improvement	39	1.80	4.6	2.20	D7	June	17.7	82	A
33	S	Washington Gas Light	35	1.80	5.1	2.76	13	June	12.7	65	Aaa
		Averages			4.8%				14.9	74%	
		Canadian									
18	S	International Utilities	35	$1.40	4.0%	$2.41	27%	June	14.5	58%	—

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER UTILITIES

1953 Rev. (Mill.)			8/25/54 Price About	Divi. dend Rate	Approx. Yield	Share Earnings* Current Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Div. Pay-out	Moody Bond Rating
		Communications Companies									
		Bell System									
$4,417	S	Amer. Tel. & Tel. (Cons.)	173	$9.00	5.2%	$11.49**	1%	May	15.1	78%	Aa
202	A	Bell Tel. of Canada	46	2.00	4.3	2.31	19	Dec.	19.9	87	Baa
34	O	Cin. & Sub. Bell Tel. ..	80	4.50	5.6	5.45	18	Dec.	14.7	83	—
144	A	Mountain States T. & T. .	119	6.60	5.5	7.00	D1	June	17.0	94	Aa
237	A	New England T. & T. ..	133	8.00	6.0	8.25**	10	June	16.1	97	Aa
579	S	Pacific Tel. & Tel.	132	7.00	5.3	7.84	8	May	16.8	89	Aa
74	O	So. New England Tel. ..	38	1.80	4.7	1.87	7	Dec.	20.3	96	—
		Averages			5.2%				17.1	89%	
		Independents									
10	O	Calif. Water & Tel.	19	$1.00	5.3%	$1.48	22%	June	12.8	68%	—
11	O	Central Telephone	17	.90	5.3	1.53	NC	Apr.	11.1	59	—
2	O	Florida Telephone	16	.80	5.0	.85	D14	Dec.	18.8	94	—
128	S	General Telephone	35	1.60	4.6	2.69**	D10	June	13.0	59	Ba
5	O	Inter-Mountain Tel.	14	.80	5.7	.93	43	Dec.	15.1	86	—
14	S	Peninsular Tel.	38	1.80	4.7	2.22	27	June	17.1	81	—
16	O	Rochester Tel.	15	.80	5.3	1.17	D5	June	12.8	68	Aa
2	O	Southeastern Tel.	14	.80	5.7	1.09	21	Dec.	12.8	73	—
7	O	Southwestern Sts. Tel. ..	19	1.00	5.3	1.54	12	Dec.	12.3	65	—
32	O	Telephone Bond & Share	20	1.00	5.0	2.07	—	Dec.	9.7	48	—
15	O	United Utilities	19	1.12	5.9	1.61**	D1	June	11.8	70%	—
195	S	Western Union Tel.	52	3.00	5.8	6.77	243	Dec.	7.7	44	Ba
		Averages			5.3%				12.9	68%	
		Transit Companies									
29	A	Capital Transit	11	$1.20	10.9%	$1.16	4%	Aug.	9.5	138%	Baa
14	O	Cincinnati Transit	4	.75	18.8	.93	D17	Dec.	4.3	81	—
9	O	Dallas Ry. & Terminal ..	9	1.40	15.6	1.83	D21	Dec.	4.9	77	—
245	S	Greyhound Corp.	13	1.00	7.7	1.17	D10	Mar.	11.1	85	—
26	O	Los Angeles Transit	11	1.00	9.1	1.20	4	Dec.	9.2	83	—
30	S	National City Lines	19	1.40	7.4	2.35	26	Dec.	8.1	60	—
73	O	Philadelphia Transit	7	.30	4.3	Deficit	—	Dec.	—	—	Ba
7	O	Rochester Transit	3	.40	13.3	.57	119	Dec.	5.3	70	—
27	O	St. Louis P.S.A.	13	1.40	10.8	1.22	30	Dec.	10.7	115	—
18	S	Twin City R. T.	15	1.60	10.7	.22	NC	Dec.	—	—	Ba
25	O	United Transit	3	—	—	.73	30	Dec.	4.1	—	—
		Averages			10.9%				7.5	89%	
		Water Companies									
		Holding Companies									
32	S	American Water Works .	10	$ .50	5.0%	$1.08	16%	Mar.	9.3	46%	—
4	O	New York Water Service	65	.80	1.2	1.38	NC	June	—	59	—
		Operating Companies									
3	O	Bridgeport Hydraulic ...	31	$1.60	5.2%	$1.57	D3%	Dec.	19.7	102%	—
11	O	Calif. Water Service ...	39	2.20	5.6	2.72	31	June	14.3	81	A
2	O	Elizabethtown Water ...	119	5.00	4.2	6.65	D4	Dec.	17.9	75	—
7	S	Hackensack Water	46	2.00	4.3	3.53	46	Dec.	13.0	57	Aa
4	O	Jamaica Water Supply ..	34	1.80	5.3	2.71	D5	June	12.5	66	A
3	O	New Haven Water	61	3.00	4.9	2.50	D10	Dec.	—	120	—
1	O	Ohio Water Service	25	1.50	6.0	1.93	4	June	13.0	78	—
6	O	Phila. & Sub. Water	52	1.00	1.9	5.50	23	Dec.	9.5	18	—
2	O	Plainfield Union Water .	53	3.00	5.7	3.70	D7	Dec.	14.3	81	—
2	O	San Jose Water	39	2.00	5.1	2.08	10	June	18.8	96	—
9	O	Scranton-Springbrook ...	18	.90	5.0	1.32	23	June	13.6	68	A
3	O	Southern Calif. Water ..	13	.65	5.0	.77	D14	June	16.9	84	A
3	O	West Va. Water Service	40	1.40	3.5	1.50**	14	June	—	93	—
		Averages			4.7%				14.4	78%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. *Earnings are calculated on present number of shares outstanding, except as otherwise indicated. **On average shares outstanding. #a—Two per cent stock dividend was also paid December 30, 1953. (a)—Paid 4 per cent stock dividend. NC—Not comparable.



What Others Think

Promoting More "Teamwork" in the Gas Industry

THE natural gas industry, like ancient Gaul, is divided into three parts. Until recently, the parts have been able to get along with only a modest amount of co-ordination necessary to carry out the normal processes of bargaining and selling between producers, pipeline transmitters, and distributors. But with the advent of regulatory demands to bring all segments of the industry under closer control, it is apparent that more unification of purpose, understanding of mutual problems, and recognition of future opportunities is necessary. The need has been brought to a head by the decision of the U. S. Supreme Court on June 7, 1954, in the controversial Phillips Petroleum Company Case.

The mischief of the situation lies in the lack of understanding, if not actual hostility, which has shown up at the consuming end of the pipeline. Politicians in consumer states have hammered on the need for low prices at the producing end; those on the producing end have stressed the necessity for keeping up prices to sustain exploration and production expansion. Obviously, the industry's over-all stake lies in co-ordination to (1) end any conflict within itself; and (2) give consumers a clear picture of what is necessary to keep gas flowing and to assure adequate supplies.

With this primarily in mind, W. E. Wilson, chairman of the Independent Natural Gas Association's public information program advisory committee, expounded INGA's plan in its working details to a gas industry conference held last July in Omaha, Nebraska. Wilson paid tribute to related work done in the public information field by the American Gas Association. From the outset of INGA's program, he said, representatives of AGA, the Independent Petroleum Association of America, the American Petroleum Institute, the Southern Gas Association, and many others have been invited to sit in with INGA's public information advisory committee and hear the plans and promises for the program. INGA's advisory committee has been named an industry liaison committee, whose job has been to work toward the goals of interindustry co-ordination.

THERE is a significant reason why INGA's public information program should be of interest to the entire industry and each individual company, Wilson said. The maturing, still growing natural gas industry has simply reached a stage of de-

velopment where it must consider many things other than immediate expansion, immediate rates, and immediate divergent problems. He explained:

> There has developed an unfortunate yet perfectly natural feeling on the part of many within each branch of the natural gas industry to look upon their particular segment of the operations as *the* industry. It is quite apparent to me that it is essential in our own interest, as well as that of the public, that this widespread misapprehension be corrected through some effective means.
>
> In order to look ahead and plan for the future, the natural gas industry must learn to understand itself. By that I mean that the producers, the pipeliners, and the distributors, in their own self-interests, should understand what makes the others click.
>
> There can be no better way to bring about industry-wide understanding than through uniting our own efforts to inform our consumers and the public generally about our industry. In informing others, we learn to understand one another and our positions as integral parts of the interdependent industry.

In developing a public information program that would have any chance of achieving the aims for which it was designed, Wilson said INGA started out on the basic premise that the public should be made aware of this simple, understandable fact: "It is more in the public interest that adequate supplies of natural gas be available to the public at attractive prices than that inadequate supplies be available at bargain prices." The most important job is to get this picture across to the general public, he stated.

THE necessity for replacing supplies of natural gas by new discoveries must also be emphasized every time there is an opportunity to do so, Wilson continued. "We know potential supplies of natural gas are great enough to meet the nation's needs for a long time to come," he said. "Even though this is a depletion industry, we can face the future with confidence on this score. But we also know that producers will not explore for supplies unless they have the incentive of profit." He noted that in some parts of the country homes have been built without a chimney or other provision for the use of any fuel except natural gas. "Obviously," he said, "anything that threatens the gas supply for these homes threatens this investment. Without question it is vital to the public for many reasons to have adequate, dependable supplies of natural gas available now and for the foreseeable future."

WILSON said he was quite aware of the fact that a large segment of the distribution end of the gas business has been viewing with alarm the rather drastic upward trend in the field prices of natural gas. The same may be said of a lot of people in the pipeline phase of the business. Such a feeling, he believes, is understandable. He warned that "if the producers of natural gas are ever so shortsighted as to create a situation whereby supplies of gas are not available to markets provided by pipeline and distribution company outlets at prices that can compete with other forms of fuel, it will be a sad day for the entire industry—including the producers themselves."

He expressed confidence that the great majority of the leadership of this part of the industry realize that the only way to insure a healthy economic atmosphere for the natural gas industry is for every phase of the business to work together in an effort to meet common responsibilities and obligations to the public.

CONSULTATIONS with industry leaders and experts in the field of public relations led INGA to conclude that a vigorous information program should above all tell the "all-industry story" of natural gas, with emphasis at the outset upon the necessity of encouraging exploration and discovery. That was the starting point, Wilson explained. The transmission and distribution phases of the industry came next, with copy and illustration themes to support the base load-building program of AGA, reflect the national themes of AGA, and yet point out the relationship of exploration, discovery, and transmission to the ultimate steps of distributing natural gas to the consumer. The various aspects of construction, maintenance, and operation of pipelines make up the treatment of INGA transmission information materials.

Wilson emphasized the fact that INGA's program is open to all companies operating in any segment of the natural gas industry. Use of the materials is not limited to INGA member companies. The materials are provided at bare costs—and in most cases at no cost whatever—to all interested companies. He pointed out that INGA numbers among its members representatives of all segments of the industry-producers, royalty owners, pipelines, and distribution companies. It was natural, therefore, to center over-all policy control of the program in a public information advisory committee composed of representatives from all segments of the industry. Wilson believes this co-ordinated direction will prevent the program from deviating from the all-industry objective. But the fact that it operates on a "grass-roots" basis means that over-all industry control does not interfere with individual company control.

Actually, what INGA is attempting is to set up public information guideposts, Wilson explained. It is hoped that these guideposts will enable individual companies in all phases of business to take INGA ads, employee information, speech suggestions, and other information aids and adapt them to their own uses. In this way there will be room for specific adaptations that will suit the particular objectives of each participating company. In creating its advertising, employee information, suggested speech texts, radio and TV commercials, and other materials, INGA's program follows as nearly as possible the policy of relating the three segments of the industry to the subject of each information project. This step, Wilson said, meets the objective of telling an all-industry story of the risks, and the tremendous investments and man power required to find, produce, transport, and distribute natural gas on a continuous 24-hour-a-day basis.

INGA's institutional ad service is provided to any company in the industry at nominal cost. Two series of ads, attractively illustrated, are provided each month —one designed for pipeline and production company use, and the other for local distribution company use. In a series of slides, Wilson showed his audience examples of each type of ad. Their titles demonstrate the nature of the appeal. For example, one of the first ads created in the pipeline and production series was entitled "Three Men Who Are Working for Your Wife." Its purpose is to identify the three segments of the gas industry and introduce the idea that it requires a 24-hour-a-day effort involving all three members of the gas industry "team" to find and produce, transport, and distribute natural gas to the consumer. Devices are employed in the ad for the purpose of constantly repeating the fact that in spite of rising costs of providing natural gas service it is still a premium fuel provided at bargain prices.

OTHER ads in this series include: "Mother Nature Plays 'Hide and Seek'" (the risk involved in searching for gas); "The Lady and the Roughneck" (identifying men who work on the drilling rigs and their jobs); "You Making Mud Pies, Too, Mister?" (the story of the use of mud in drilling for gas and oil); "If You Depended on Dusters, No Dinner Tonight . . ." (explaining why exploration for gas must be carried on constantly despite "dry" holes to assure continuous and adequate service).

Ads for local distribution company use also tell the gas industry "team" story, but from the *consuming* end of the pipeline. In one, "Mommy, What Makes the Gas Flame Go," the base load drive of the industry is emphasized, while the copy points up the good citizenship of the local gas distribution company. Others in this series include "The Oracle of Delphi Became Your Servant" (comparing modern and ancient uses of gas, the risks and costs of hunting for gas, together with the AGA gas service story); "The Search That Never Ends" (need for 24-hour-a-day exploration operations); "Dig Deep, Scotty, If You Want to Find It" (the ever deeper drilling necessary in the hunt for gas with resulting higher costs and need for incentive for the producers).

INGA ads also tell the *transmission* story, and are provided for production and pipeline company use in their local advertising activities. Some sample titles: "We're Digging a Big Ditch, Sonny . . . to Make Your Home More Comfortable" (dramatizing the story of pipeline construction, its expense, and the relations of the work of pipeliners with the gas industry team and service story); "This PIG Puts the Sizzle in Your Morning Bacon" (depicting the little-known maintenance operations of pipelines to tie in with the gas industry service story).

FOR local gas utilities, INGA materials include employee information quizzes, which are distributed monthly in proof form without cost to all interested companies. Their purpose is to assist in the program of informing employees on how all segments of the industry operate, and about industry problems; speakers' kits and manuals designed to help those who take advantage of opportunities to appear before national, regional, and local groups to tell the natural gas story; spot radio commercial service for use by companies using radio advertising; and news features for local company use. INGA is also working on a series of one-minute television spot film commercials.

Wilson stressed again that INGA's program is especially designed to work through local companies in all segments of the industry to tell the story of the natural gas business on a nation-wide scale. "We firmly believe," he stated, "that the only effective way to inform the public about our industry and its problems is at the 'grass roots'—but on a national basis."

It is clear that Wilson's appeal is based on a hardheaded and practical program necessary if the natural gas industry is to surmount its politico-economic problems. During recent years in Washington, political lightning has been playing around the industry in the form of certain government action. This was bound to come. The creation of a gas policy committee and a natural resources advisory board clearly indicates that it is already here to some extent. While such developments were inevitable, it also points up the hard fact that any deficiency of intraindustrial teamwork would simply mean that the government might have to step in and impose its own brand of co-ordination. It will probably step in, anyway in one form or another. Even so, the industry will be better off if it can agree on what it needs.

The March of Events

TVA Seeks More Data

THE Tennessee Valley Authority reportedly wants more information before becoming a party to President Eisenhower's controversial proposal to contract for private power in TVA territory.

TVA has responded in a letter to Rowland Hughes, Budget Bureau Director, to a bureau directive to meet "promptly" with the Atomic Energy Commission on contract arrangements. The letter was reported to have asked for additional information regarding TVA's part in the proposed power exchange; but TVA recently declined to disclose its contents without permission of the Budget Bureau. The bureau said it would "not even consider" making the communication public until it has been answered.

A TVA spokesman said Harry A. Curtis, vice chairman of the board, wrote the Budget Bureau in response to a bureau letter dated August 18th and made public recently by presidential order. The letter was written just before the new TVA chairman, Herbert D. Vogel, was sworn in as a director on September 1st.

Probably as a result of the TVA request, a congressional showdown on the Dixon-Yates power contract was postponed to give the Atomic Energy Commission more time to prepare its testimony. The Senate-House atomic committee had called hearings for September 2nd on the bitterly disputed contract, branded a Republican "scandal" by Democratic National Chairman Stephen A. Mitchell.

But a committee source said Chairman Cole ordered the delay.

California

PG&E Seeks Rate Hike

A PUBLIC hearing was opened in San Francisco on August 25th by the California commission on an application filed by Pacific Gas and Electric Company last March for an increase of $7,073,000 a year in natural gas rates. The higher customer rates would offset an increase in the rate PG&E pays for out-of-state gas purchased from the El Paso Natural Gas Company of Texas. More than two-thirds of the natural gas now served customers in northern and central California is supplied by PG&E to El Paso.

The general rate increase proposed would average less than 30 cents a month per domestic customer, or about a penny a day. The average increase for all classes

of customers would be about 5 per cent.

Frederick T. Searls, PG&E's rate attorney, pointed out that the company's gas rates were fixed in 1951 by the state commission, based on the then prevailing cost of gas.

Kentucky

Commission Vetos Co-op Service

THE Kentucky Public Service Commission late last month authorized the Southern Bell Telephone & Telegraph Company to provide telephone service in the area of Hickman and Fulton counties, which the H-F-C Rural Telephone Co-operative Corporation had proposed to serve. The commission dismissed the co-op's application for approval of its buying six locally owned phone companies in the area and operating a co-operative system.

In allowing Southern Bell to provide the service, the Kentucky commission directed it do so within four months. The Bell system is to take over the local facilities.

The commission's order was given in a case that was back before it after having been battled through the courts.

New York

Utility Rate Increase Report

THE public service commission reported in mid-August that in 1953 utility companies in the state got $10,647,000 in rate increases. This is the smallest annual total since 1946.

In a 235-page report to Governor Dewey and the New York legislature, Commission Chairman Benjamin F. Feinberg said that rate reductions of $1,103,000 were achieved during the year, leaving a net increase of $9,544,000. The utilities had asked for increases totaling $14,365,000. Rate rises reached a postwar peak in 1948, when almost $43,000,000 was authorized. In 1952, the commission permitted the utilities to raise rates by $40,737,000.

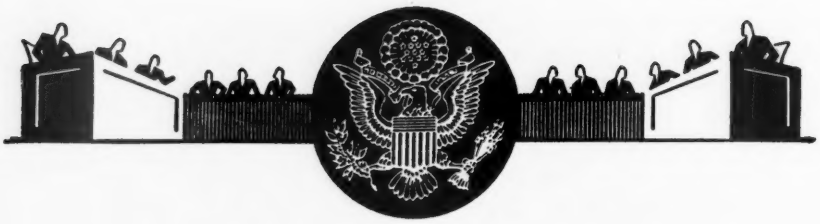
Since World War II, the commission has "resisted the shocks and strains of the inflationary tide in so far as utility rates are concerned and has succeeded in holding the cost of utility service within reasonable bounds," the report stated.

Tennessee

New Phone Rate Boost Sought

PLANS of Southern Bell Telephone & Telegraph Company to file a new rate increase petition with the state railroad and public utilities commission were revealed recently by Sam Youngblood, the company's Tennessee general manager.

Although declining to predict the amount that would be requested, Youngblood said an earlier request for $7,300,000 is now "out of date and, in the light of increased operating costs and higher investment costs, does not accurately reflect the company's current need for additional revenue." Announcement that the company would file a new petition with the commission was made simultaneously with the disclosure by the utility that it would not appeal its two-year-old case to the Tennessee supreme court.



Progress of Regulation

Commission Considers Cost of Capital to System in Determining Operating Utility's Return

A WATER company applying to the Pennsylvania commission for a rate increase did not claim a specific rate of return but contended that the allowable return should be based on the current cost of capital to it, just as if it were being operated as an independent water utility.

The company was, however, an operating utility within an extensive waterworks system which consisted of over one hundred operating utilities, several intermediate holding companies, and several service organizations. Its financial structure contained no long-term debt and all its short-term obligations and common stock were owned by its immediate parent, which in turn, was controlled by an intermediate holding company.

Under the circumstances, the commission commented, the company's assumption of complete autonomy for itself, in determining a fair rate of return, is unrealistic. In determining such return, consideration would be given to the cost of capital applicable to the system in addition to capital cost experienced by independent utilities.

At the request of the commission, the company furnished, but refused to offer for the record, financial data pertaining to the historical and current cost of senior capital to the holding companies and also factual data with respect to current market trading in the common stock of the holding company, claiming that such data had no relevance in ascertaining a fair rate of return for the operating utility.

The company cited the Bluefield Case, 262 US 679, PUR1923D 11, which stated that the allowed return must permit the utility to earn a return equivalent to that being earned by businesses having comparable risks, and must enable the utility to maintain its credit and attract capital.

The commission, while agreeing with those objectives, commented:

> . . . the most comparable risks and uncertainties in this instance are to be found in the operation of the Northeastern American System, and not in isolated independent water utilities. Respondent would have us ignore the market investors' appraisal of general assets and credit of the system through which it actually derives its capital. Since respondent is not autonomous, the hypothetical question of respondent's ability to maintain its credit and attract capital as an independent water utility may be relevant, but it certainly is less pertinent to the problem at hand.

The company also contended that the cost of capital to a parent company was

dependent upon the earnings of its various subsidiaries, and not vice versa, and that neither the company nor its customers should be penalized or benefited by reason of the more profitable or less profitable operations of other utilities in a holding company system.

The commission answered the company's argument in these words:

> The cost of the capital actually employed in respondent's operations is primarily a direct result of investors' appraisal of the earnings of the system of which it is a part, and not of the earnings that might result if it were operated as an independent water utility. A reasonable and fair cost of capital applicable to each operating unit in a holding company utility system is found in the average cost of capital to the system as a whole, and the application of this average cost to each operating unit does not result in discrimination for or against the customers of any subsidiary, because it is based on actuality instead of hypothesis.

The commission decided, on the basis of its determination of cost of capital to the system and to independent operating water utilities, that the company should be authorized to increase its rates. The increase would result in a return of 6 per cent on the commission's fair value finding, which it did not consider in excess of a fair return. *Pennsylvania Pub. Utility Commission v. Uniontown Water Co. Complaint Docket No. 15965, April 5, 1954.*

Reparation Distinguished from Breach of Duty Claim

A GRAIN shipper complained to the Indiana commission that a railroad had failed to provide grain doors over a particular period, in violation of the carrier's duty to furnish suitable equipment. The shipper sought a sum of money from the railroad.

The commission distinguished between a claim for reparation and the relief sought by the shipper in this proceeding. Reparation is in issue, stated the commission, when a carrier has transported a shipment and collected rates in excess of the lawful rates. Then, if the commission determines that the shipper's claim is proper and correct, a refund of the amounts illegally collected will be ordered.

In this case, the shipper sought money for breach of a carrier's common-law duty to furnish the equipment. Whether there was such a breach, was a question that could be decided only by a court of competent jurisdiction in an equity proceeding. The commission likened the complaint to an ordinary action for damages for breach of contract by a carrier to furnish proper equipment in which to transport freight. The complaint was dismissed. *Harting et al. v. Pennsylvania R. Co. No. 24276, May 20, 1954.*

Accommodation Water Service Does Not Create Extraterritorial Obligation

THE appellate division of the New Jersey superior court affirmed a lower court order in favor of a borough in a water service controversy. The borough had accepted a water main constructed by a state turnpike authority and as an accommodation to the authority agreed to provide service to residents of a near-by

municipality whose wells had been damaged by construction of the turnpike. The sole question involved in the litigation was whether the borough was obliged to serve other persons residing in the same municipality.

The court noted that the borough, in agreeing to serve the four customers, had stipulated "that it accepted the main and undertook to furnish water to these four properties 'in a spirit of co-operation' and that its actions in this regard were not to 'be construed as indicating a policy on behalf of the borough of Hightstown of extending water mains into the township of East Windsor or of providing water to its inhabitants.' "

In supplying the water, the court continued, the borough was engaged in a private or proprietary function but did not put itself in the same position as a water company with a practical monopoly. The stipulation attached to the services rendered the four residents made it entirely clear that the borough did not enter into the water business in the neighboring community when it agreed to extend service to the persons whose wells had been damaged. *Mongiello v. Borough of Hightstown, 105 A2d 692.*

Gas Service Should Not Be Dependent upon Uncertain Foreign Supply

THE Federal Power Commission, in granting an application under § 3 of the Natural Gas Act for the importation of natural gas, must not fail to give the fullest possible protection to all prospective consumers, it was said by the commission in refusing to authorize Westcoast Transmission Company, Inc., and Trans-Northwest Gas, Inc., to construct and operate facilities and to import gas from Canada.

The Natural Gas Act imposes upon the commission the duty to protect the American public through regulation and control of the transmission and wholesale sale of natural gas. It is essential that domestic consumers and much of the industry in any area be reasonably assured of a firm supply.

Such protection, said the commission, would not be afforded to any segment of the American people if its sole source of essential natural gas were through importation from a foreign country without some intergovernmental agreement assuring the continued adequacy of its gas supply.

Otherwise, all control over the production, allocation, and transportation to the American border of such gas would be in the hands of agencies of foreign governments. Their primary interest would of necessity always be in the needs and advantages of their own people. Their judgments and actions would be essentially dependent upon public opinion within that country, rather than upon the interests of American consumers. *Re Northwest Nat. Gas Co. et al. Opinion No. 271, Docket Nos. G-996 et al. June 18, 1954.*

Revoked Certificate Not Revived

AFTER the commission had set aside its revocation of a motor carrier's certificate, another carrier sought to enjoin the operation of the reinstated carrier. The Arizona supreme court, in passing upon the lower court's dismissal, stated

that all rights under a certificate of public convenience and necessity die when such certificate is revoked. To requalify, the carrier must follow the prescribed procedure for originally procuring a certificate.

The commission had originally revoked the carrier's certificate for failure to pay taxes, which revocation was later set aside by an ex parte order. Commenting on the legality of the commission's action, the court said:

> To permit the commission to revive a void certificate at any time it deems advisable by ex parte order would defeat the purpose and meaning of the statute requiring revocation. It would give it the effect of requiring only suspension for such length of time as the commission might of its own motion decide. The statute requires that the commission cancel and not suspend the certificate. The certificate having been annulled, there was nothing to revive. If legal sanction be given the attempted rescission order of May 18, 1951, the provisions of § 66-506, *supra,* would be bypassed and defeated. The attempted revival of a terminated certificate is the legal equivalent of the issuance of a new one. This can only be done by following the prescribed procedure.

The commission did not have the power or jurisdiction to set aside its revocation order by ex parte order. Injunction, the court decided, was a proper remedy for testing the commission's action. *Tucson Warehouse & Transfer Co., Inc. v. Al's Transfer, Inc. (1954) 271 P2d 477.*

Other Important Rulings

Schedule Held to Be Original Filing. A gas company's application for approval of a rate schedule was held by the Ohio supreme court to be an original filing and not an application for increased rates, notwithstanding that the company had previously entered into rate contracts with individual consumers, which contracts had not been filed with the commission, and had thereafter increased rates and signed contracts with other consumers on the basis of the increased rates, which contracts had been filed with the commission. *Cookson Pottery et al. v. Ohio Pub. Utilities Commission et al. (1954) 120 NE2d 98.*

Temporary Certificate Reluctantly Granted. The New York commission approved an application for a temporary certificate to operate an omnibus line in view of immediate and urgent need notwithstanding that the facilities and equipment of the company failed to meet commission requirements as to safe and comfortable service. *Re Kilborne, Case 16901, July 22, 1954.*

Customer Demand Important Factor. The Wisconsin commission, in passing upon a telephone company's request for increased rates, commented that the number of customers willing to pay increased rates for an extended area service is an important factor to be considered in determining whether such service should be established. *Re McFarland Teleph. Co. 2-U-4234, June 24, 1954.*

Liability for Freight Undercharges. The United States court of appeals, in sustaining a railroad's judgment against a shipper for freight undercharges, commented that a shipper electing to operate under a transit rate provision of a railroad's tariff is obligated, in order to ob-

tain the lowest through rates, to comply with every duty imposed upon it by such tariff and cannot accept the benefits of the program without discharging the burdens. *Chicago & N. W. R. Co. v. Connor Lumber & Land Co. 212 F2d 712.*

Service beyond City Limits. The North Dakota commission allowed an electric company to serve a customer located beyond the corporate limits of the city served by the company, notwithstanding that a co-operative also served the area where the customer was located, where the area was part of the environs of the city and the customer had indicated a preference for the company. *Nodak Rural Electric Co-operative, Inc. v. Northern States Power Co. Case No. 5111, July 10, 1954.*

Foreign Vehicles Exempt. The Michigan supreme court held that a foreign trucking company transporting grapes during a short harvest season from Canada to a processing plant in Michigan was not required to obtain a certificate, since the provisions of the motor carrier act exempting from regulation vehicles used for transportation of fruit to market or for occasional accommodative transportation service encompassed the operations of the foreign trucking company. *Welch Grape Juice Co. et al. v. McCarthy et al. 64 NW2d 624.*

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CALIFORNIA PUBLIC UTILITIES COMMISSION

Re Citizens Utilities Company of California

Decision No. 50250, Case No. 5465,
Application No. 33581 (As Amended)
July 6, 1954

INVESTIGATION *on commission motion to determine reasonableness of water rates and adequacy of service, wherein water company seeks authority to increase rates; service improvement ordered and rate increase authorized upon service improvement.*

Valuation, § 225 — Future construction.

1. The future rate base of a water company should include recorded fixed capital and projected additional plant which will recognize its construction program, plus facilities necessary to implement commission findings respecting delineation of the service area and adequacy of service, p. 102.

Expenses, § 91 — Rate case expenses — Unsuccessful litigation — Appeal from order.

2. Counsel fees and other expenses incident to an appeal taken by a public utility in a rate case, particularly when such appeal is unsuccessful, should not be charged against the ratepayers, although reasonable legal expenses incurred by a utility in a rate proceeding before the primary rate-fixing authority are proper operating expenses for rate-making purposes, p. 103.

Return, § 115 — Water company — Temporary rates — Service adequacy.

3. Temporary water rates which had yielded a return of 5.96 per cent for the past year were held to have yielded a satisfactory return, particularly in view of the fact that the company had been furnishing inadequate and unsatisfactory service, p. 104.

Rates, § 131 — Reasonableness — Adequacy of service.

4. Permanent water rates should be designed to produce a fair return upon that rate base which will accord the customers reasonably adequate service, and such rates should be made effective as of the time when such service may be assured, p. 104.

Return, § 115 — Water company.

5. A return of approximately 6 per cent was considered fair and reasonable for a water company and its consumers, p. 104.

Rates, § 250 — Retroactive rates.

6. A water company's request that a permanent rate increase be made effective retroactively was denied where interim rates authorized by the commission had produced a satisfactory return and where the company's

service had been found to be inadequate and unsatisfactory during the interim period, p. 105.

APPEARANCES: Applicant: Orrick, Dahlquist, Herrington & Sutcliffe, by George H. Johnston for Citizens Utilities Company of California.

Protestants: San Lorenzo Valley Chamber of Commerce, Ben Lomond Valley Property Owners Association, Ben Lomond Recreation District and Business and Professional Womens Club, by Alice Earl Wilder; Larita Woods Mutual Water Company, by A. W. Archer; Wildwood Country Home Club Incorporated, by Harold C. Andersen.

Interested parties: San Lorenzo Valley County Water District, by John C. Luthin; Irene M. Gairaud, by L. Louis Gairaud.

Commission staff: Harold J. McCarthy and John F. Donovan.

By the COMMISSION: The above-entitled application was filed July 17, 1952, and hearings thereon, after amendment, were held during February, 1953. By Decision No. 48618, issued May 19, 1953, this commission authorized applicant to increase rates on an interim basis, reopened the proceeding for further hearing, and coincidentally instituted an investigation into the reasonableness, adequacy, sufficiency, and lawfulness of the rates, charges, and service rendered by applicant and applicant's operations as they pertain to or affect its Boulder Creek District. Such further hearing on the consolidated matters has now been had, having been held before Commissioner Mitchell and examiner Emerson during the 5-day period ending March 12, 1954.[1]

Applicant's Request

By its latest amendment applicant seeks still further increases in rates. A comparison of the last permanent rates in 1952, the 1953 rate request, the interim rates granted, and those now sought is shown in the following tabulation:

[1] Chronologically the following has occurred: (1) Original application (with those for four other water systems) filed July 17, 1952; (2) first amendment filed July 29, 1952; (3) second amendment filed December 19, 1952; (4) twelve days of hearings held during February, 1953; (5) Decision No. 48618, authorizing increased rates, issued May 19, 1953; (6) applicant petitioned for rehearing, June 8, 1953; (7) interim rates became effective June 16, 1953; (8) rehearing denied by Decision No. 48778, issued June 30, 1953 (1 PUR3d 244); (9) applicant petitioned supreme court for writ of review and conditional stay (S F No. 18899) on July 30, 1953; (10) applicant petitioned commission for extension of time to comply with portion of Decision No. 48618, granted August 18, 1953; (11) applicant requested further extension of time, granted September 15, 1953; (12) applicant filed report, as required by Decision No. 48618, on October 5, 1953; (13) supreme court sustained commission's order by denying writ of review on October 29, 1953; (14) applicant filed third amendment to application for rate increase on February 2, 1953; (15) further hearings commenced March 8 and terminated March 12, 1954; (16) last brief received April 27, 1954; (17) applicant's corrections to its brief, received May 15, 1954.

MONTHLY BILLING COMPARISON
(Based on Annual Rates)

Usage Cubic Feet	1952 Last Permanent Rates	1953 Requested Rates	1953 Interim Rates Authorized	1954 Requested Rates	Per Cent Increase Latest Request over Last Permanent Rates
300*	$1.67	$2.25	$1.83	$2.90	73.7%
400	2.02	2.70	1.83	2.90	43.6
600	2.72	3.72	2.63	3.84	41.2
1,000	4.12	5.68	4.23	5.72	38.8
2,000	7.62	10.58	8.23	10.42	36.7
5,000	16.12	21.88	18.23	22.52	39.7
10,000	27.12	36.28	31.73	39.52	45.7

*81% of all consumers served on the "annual" schedule use this amount or less. On the "monthly" schedule 40% of all consumers use this amount or less.

Issues Involved

The basic issues or matters for determination involved in this proceeding concern (1) accurate determination of the area in which applicant is obligated to serve, (2) establishment of adequate service therein by means of permanent additions and improvements to the water system, and (3) the establishment of a permanent rate structure.

Service Area

In a 1948 decision[2] this commission defined the area in which applicant was obligated to serve the public as having boundaries of which the upper level limits were approximately along the 700-foot contour as shown on a map attached to the then application, said boundaries, however, to include the area known as Redwood Grove located above said 700-foot contour. In response to the commission's order, applicant filed a map purporting to delineate the boundaries indicated by the commission. Such map, however, showed an area extending to the 700-foot level in the northern portion of the system, another area in the central portion of the system extending to the 400-foot contour level, and still another area in the southern portion of the system whose upper level ended at the 325-foot contour. Applicant has since adhered to such levels and has refused to serve above the respective levels delineated on its filed map. This situation was brought to the attention of the commission during the 1953 hearings and is briefly discussed in our Decision No. 48618, issued May 19, 1953.

During November and December, 1953, engineers of the commission staff made a thorough investigation of applicant's system. Staff engineers accurately determined the extent of the area being then served, together with a survey of the facilities of applicant in order to determine their suitability and adequacy. The locations of potential consumers with respect thereto was also determined. During the hearing the results of such investigation were presented as Chapter 11 of Exhibit No. 1. By such report and oral testimony in support thereof the staff engineers recommended establishment of upper level limits to which applicant has agreed. Basically the staff recommendation would create two areas. The first would obligate

[2] Decision No. 41355 in Application No. 25401 and Case No. 4906, issued March 23, 1948.

applicant to serve to an elevation of 675 feet in the northern portion of the system and 475 feet in the central and southern portions of the system. As exceptions, the Redwood Grove and Reynoldsville Park areas would be served to 875 feet, Boulder Brook to 750 feet, and Forrest Park to 700 feet.

In view of the evidence we find that public convenience and necessity require and will require that applicant provide adequate water service, at pressures of not less than 25 pounds per square inch, to and including the above-mentioned elevations as hereinafter specifically ordered.

Adequacy of Service

As discussed in our Decision No. 48618 this system has experienced numerous service deficiencies over a considerable period of time. The system has known severe water shortages and consumers have been supplied water at pressures which were practically unusable. During the course of the 1953 hearings and the period since that time applicant has made certain operational changes and has made certain plant additions which have somewhat alleviated the situation. According to applicant's witness, 1953 was a good water year. Sources of supply proved to be adequate in such year and the system went through the summer season without consumers complaining of lack of water.

Applicant's plans and program of system improvements are set forth in its report, filed on October 5, 1953, in response to Decision No. 48618 and in its budgeted construction work set forth in its third amendment to the application as further revised by Exhibit No. 7 and oral testimony.

The commission staff investigation and engineering recommendations pertaining thereto are contained in the chapter of Exhibit No. 1 above mentioned. The staff determined that applicant's system, because of its limited development of water supply and small-sized mains, primarily is deficient in storage capacity even though the system has numerous storage tanks. According to the staff witness many of the present tanks are poorly situated and some are of such small size and at such elevations as to serve no practical or useful purpose. Basically, therefore, the staff recommends that one storage tank of 100,000 gallons be installed in the northern portion of the system, that a similar tank be installed in the southern portion and that some small tanks be retired.

To counter the staff recommendation, applicant's witness proposed the installation of a section of 8-inch main to parallel the present 6-inch main between the system's major storage tanks and the town of Boulder Creek. By such means a greater quantity of water could flow both to the northern and southern portions of the system. Such counterproposal, though hastily improvised, has undoubted merit from a flow standpoint. It adds no storage, however. Although the witness admitted additional storage would be beneficial, it was his position that the cost thereof should be avoided until consumer complaints made the elevation of existing tanks or the installation of new and larger tanks unavoidable.

Applicant's system is gravity-fed, depending upon the natural flow of springs, creeks, and small streams for

its supply. The system has no seasonal storage facilities nor do the staff's recommendations include provisions for seasonal storage. However, they do provide for storage which, in conjunction with certain existing facilities, would assure a stored supply of water sufficient to carry the system through a summer 3-day week-end peak period in a "poor" water year.

Applicant avows a "willingness and ability to meet service problems" yet the pattern of performance is clearly one in which planning and construction budgets are prepared on short-term bases and revised during proceedings before this commission to meet the exigency of the moment.[3] Applicant has no long-range plans for this system with respect to meeting service problems.[4] Repeatedly, during the testimony of applicant's engineering and management witness, it developed that studies had not been made of situations which, according to the witness, were important. Repeatedly, recourse was made to conjecture.

No utility can successfully provide the public with adequate service at reasonable rates by confining its planning to such short-range term as the month-to-month basis which applicant's witness indicates this system has experienced. The staff survey of this system is perhaps the only over-all study of the physical system made by anyone in the past six or more years. It has engineering value and places in bold relief the misfit nature of the essential components of applicant's system.

In view of the evidence we find that public convenience and necessity require and will require that additional storage be provided in the northern portion of the system, that certain tanks be elevated or removed, and that certain items of applicant's revised construction budget for 1954 be installed as hereinafter ordered. We hereby find that the facilities and instrumentalities of applicant are insufficient and inadequate in the matters pointed out and that such improvements, reasonably, should be made.

Results of Operations

Rate Bases

Except for the common starting point of fixed capital as of the end of 1952, the rate bases developed by applicant and the commission staff differ markedly as to amount, items included, weighting of fixed capital additions, and periods covered. They are not directly comparable.

Certain deficiencies in applicant's

[3] As the latest example: Applicant received the staff report on the Friday preceding the latest hearings. By Monday morning, the first day of hearing, it had revised its construction budget and its proposed exhibits in an effort to counter the staff proposals.

[4] Of significance are witness Gibbs', vice president and engineer, replies to questioning, as follows:

Mr. Luthin: Do you have any long-range program worked out? Do you do your planning on a 5-year basis or less or more?

Witness Gibbs: Well, we have had an awful hard job to get away from just a month-to-month basis and we feel pretty good to be able to think as far as five years ahead.

Question: The thing I am interested in is the possibility of any major facilities being required within the next five years in addition to the ones that you have listed in your construction budget.

Answer: I do not foresee any major—it is rather difficult to say "major." *I would like to,* in the next five years, *have a program* of adding larger-sized mains in the northern section, for instance, in other words, in the section which staff witness Reader suggested his 100,000-gallon tank. *I would like to see more 6-inch line* out in that vicinity, but some of that will be done within five years and whether you call it major or not, I don't know. (Emphasis supplied.)

presentation are readily apparent. Applicant's development of rate bases mixes averages with year-end figures, fails to exclude nonoperative properties, understates the reserve for depreciation, and includes an allowance for working cash on a system whose consumers provide applicant with large sums of money in advance of water usage.

In view of the evidence we find the following to be a reasonable weighted average rate base for this system for the year 1953:

YEAR 1953

Item		Amount
Total Fixed Capital (weighted average)		$425,125
Donations in Aid of Construction		(534)
Consumers Advances for Construction		(4,018)
Nonoperative Property		(4,303)
Materials and Supplies		3,630
Working Cash		0
Depreciation Reserve	($91,279)	
Adjustment for nonoperative property	228	(91,051)
Average Depreciated Rate Base		$328,849

(Inverse Item)

In view of the evidence and recognizing due weighting of the respective dates of completion of applicant's proposed 1954 construction program, we find the following to represent a fair and reasonable rate base for the year 1954: [See top of second column.]

[1] With respect to the derivation of a reasonable future rate base, we shall include recorded fixed capital and projected additional plant which will fully recognize applicant's 1954 revised construction program, as set forth in Exhibit No. 7, plus the facilities necessary to implement our above-stated findings respecting delineation of the service area and adequacy of service. Such rate base, taking into account the time required to accomplish the hereinafter ordered system improvements, is applicable to the average year 1955 and is derived as follows. We find such rate base to be reasonable:

YEAR 1954

Item	Amount
Total Fixed Capital (weighted average)*	$468,600
Donations in Aid of Construction	(500)
Consumers Advances for Construction	(4,000)
Materials and Supplies	3,700
Working Cash	0
Depreciation Reserve*	(101,000)
Average Depreciated Rate Base	$366,800

* Excluding nonoperative property (Inverse Item)

YEAR 1955

Item	Amount
1954 Year End Fixed Capital	$488,200
1955 Gross Additions, average	26,000
1955 Retirements	(4,900)
Donations and Contributions	(4,500)
Materials and Supplies	4,000
Working Cash	0
Depreciation Reserve	(102,100)
Average Depreciated Rate Base	$406,700

(Inverse Item)

Revenues

Applicant and the staff are in fairly close agreement as to the amounts of revenue derivable under the existing interim rates. We adopt as reasonable the amounts of $71,200 for the year 1953 and $76,800 for the year 1954, such sums including all revenues properly derivable under regularly filed and effective rates.

Expenses

For the year 1953 applicant and the staff are in reasonably close agreement as to total operating expenses, applicant having indicated a total of $55,122 actual and $56,136 as adjusted for full year effect of interim rates, while the staff indicated a total of $55,561 on the basis of an adjusted and normalized year.

In the main the respective sums represent actual expenditures. Some items however, comprise accounting allocations which are open to scrutiny and certain other items which are subject to investigation as a matter of principle. Among these are the matter of charges, to applicant by its parent, of a "mutual service fee," charges for attorneys' fees, and calculation of taxes based upon income.

With respect to the so-called "mutual service fee" assessed by the parent corporation, the record in this proceeding is insufficient to permit of a determination as to its reasonableness. As a practical matter an adequate study of such "fee" can be undertaken only by sending staff experts to Connecticut, a situation entailing considerable expense which, in our opinion, is not warranted in the instant proceeding. Such study will be deferred until such time as a proceeding is brought before us, or is initiated by the commission, involving applicant's over-all operations or general rate structure. For the present, therefore, no disallowance of said "mutual service fee" will be made for the rate-making purposes now before us.

[2] In applicant's accounts covering regulatory expenses are the costs of prosecuting its numerous rate proceedings. Reasonable legal expenses incurred by a utility in a rate proceeding before the primary rate-fixing authority are proper charges to its operating expenses because such a rate proceeding is absolutely necessary as a condition precedent to its receiving rate relief. An appeal or other review proceeding, however, is optional with the utility and is the taking of a calculated risk. The taking of an appeal is not a necessary part of due process. When a party takes an appeal he subjects himself to the suffering of any prejudice flowing from a rejection of such appeal.[5] Counsel fees and other expenses incident to an appeal taken by a public utility in a rate proceeding, particularly where such appeal is unsuccessful, should not be charged against the ratepayers. It is a risk taken by stockholders, not the ratepayers. We disallow as an operating expense for purposes of rate fixing that part of claimed legal expenses attributable to the unsuccessful review proceeding taken by applicant from the decisions of this commission (Decision Nos. 48618, 48619, 48620, 48621, 48622).

With respect to a determination of taxes based upon income we have turned to applicant's federal income tax return dated September 9, 1953,[6] as being the best available evidence of applicant's income tax liability. Using the basic data contained therein, we find that the income tax expense assignable to the Boulder Creek District of applicant does not exceed $9,-

[5] Panhandle Eastern Pipe Line Co. v. Federal Power Commission (CA8th 1949) 83 PUR NS 603, 179 F2d 896, 902; Panhandle Eastern Pipe Line Co. v. Federal Power Commission (CCA8th 1946) 63 PUR NS 270, 154 F2d 909, 911, 912.

[6] Exhibit No. 17 in this proceeding.

300 for the year 1953. This amount will be included as an operating expense.

All remaining operating expenses claimed by applicant for the year 1953 will be accepted as reasonable for the purposes of the instant proceeding. We adopt, therefore, the sum of $51,600 as a total of all reasonable operating expenses for such year.

With respect to the year 1954 we shall recognize applicant's estimated expenses with adjustments similar to those above discussed. By so doing we derive and adopt as reasonable the sum of $59,600 as the total of all reasonable operating expenses for the estimated year 1954.

Net Revenue—Rate of Return

Summarizing the above-adopted revenues and expenses and relating them to the rate bases hereinabove found to be reasonable indicate the following:

Under Existing Rates

Item	Year 1953	Year 1954
Gross Revenues	$71,200	$76,800
Total Operating Expenses	51,600	59,600
Net Revenue	19,600	17,200
Average Depreciated Rate Base	328,849	366,800
Rate of Return	5.96%	4.69%

Conclusions

[3] We conclude that under the service rates effective during the year 1953, applicant's operations of this system have produced a satisfactory return. In fact it is in excess of that intended by our interim decision in this matter. In view of the deplorable service situation which engendered the issuance of an interim decision and the initiation of an investigation on this commission's own motion, the results of operations above set forth cannot be said to be unfair to applicant. In the light of the evidence as respects adequacy and value of the service and applicant's failure to perform and discharge its public duty enjoined by law, we find the return for the estimated year 1954 to be satisfactory.

Authorized Permanent Rates

[4, 5] In considering the establishment of permanent rates for this system we are mindful of the fact that this system requires further improvement, as heretofore discussed. Some of the needed facilities may not be completed before mid-1955. They are minimum requirements but will benefit the consumers. They will not produce more than a very minor amount of additional revenue. It seems proper, therefore, to design the permanent service rates to produce a fair return upon that rate base which will accord the consumers a reasonably adequate service and to make such rates effective as of the time when such service may be assured.

We find that a rate of return of approximately 6 per cent on the rate base of $406,700 for the year 1955, hereinabove derived, is fair and reasonable to utility and consumer alike. The permanent rates herein authorized should produce gross revenues of not less than $84,900 during the normalized year 1955 and, after allowance for total reasonable operating expenses of $60,500 for that year will yield such a rate of return.

The permanent rate structure to be established herein will consist of two basic rates, "General Metered Service" and "Seasonable Metered Serv-

ice." Each will have the same scale of charges and the same quantity blocking, with an initial usage block of 500 cubic feet per month. Recognizing the lesser year-round demands of seasonal users, the schedule for seasonal usage will be available for ten-months usage at a lower total minimum billing than the general service schedule.

[6] At each step in this proceeding applicant has requested that new rates be made effective retroactively. In view of our above-stated findings respecting the earning position of applicant and in further view of the lack of a good and sufficient showing by applicant as to any justification for the granting of such request, the request is denied. The new rates will be made effective for the next annual season.

DISTRICT OF COLUMBIA PUBLIC UTILITIES COMMISSION

Re Washington Gas Light Company

P.U.C. No. 3551, Formal Case No. 436, Order No. 4088
June 30, 1954

APPLICATION *for authority to include purchased gas adjustment provision in retail gas rate schedule; granted. For decision on plan for refunds, see post, p. 111.*

Reparation, § 42 — Interest on refunds.

1. A natural gas rate schedule, providing for adjustments in charges for retail gas service to reflect increases and decreases in the wholesale price of natural gas, need not provide for payment of interest in refunds to the customers where the adjustment clause makes no provision for collecting from customers an increase in gross receipts tax related to any increase in revenues based on the increased cost of natural gas and collection of the higher gross receipts tax would more than offset the interest on refunds, thereby producing a net result favorable to the customers, p. 108.

Rates, § 302 — Natural gas — Purchased gas adjustment.

2. A purchased gas adjustment provision in a natural gas distributing company's rate schedule, with general service provisions providing an automatic adjustment of retail rates to the extent of increases or decreases in the wholesale price of natural gas, was approved as being just and reasonable in the public interest and consistent with the purposes of all applicable laws, p. 110.

By the COMMISSION:

Nature of Proceeding

On May 26, 1954, Washington Gas Light Company (hereinafter referred to as the "company") filed an application which was supplemented June 17, 1954, requesting authority to establish, as a part of its rate schedules and general service provisions, a purchased

gas adjustment provision prescribing, for gas service in the District of Columbia, (1) adjustments of charges for gas sold in accordance with decreases or increases in the wholesale price of natural gas purchased by the company, and (2) credit adjustments to bills to effectuate reimbursement to customers.

By a separate application also filed on May 26, 1954, the company requested approval of a plan for making credit adjustments to customers' bills representing reimbursement of portions of retail charges collected by the company for gas sold during the period May 29, 1953, through February 28, 1954 (PUC No. 3517/6—Formal Case No. 437). Since the two applications were related, the commission consolidated them for hearing.

After appropriate notice, a formal public hearing was held on June 25, 1954, at which representatives of the Maryland Public Service Commission and the State Corporation Commission of Virginia were present.

A petition for leave to intervene was granted to the United States of America through its general services administration whose counsel offered no testimony but expressed approval of the company proposals as fair and equitable.

Testimony for the company was presented by Everett J. Boothby, president, and Otis H. Ritenour, vice-president-finance. Testimony for the commission was presented by J. W. Falk, executive accountant and auditor.

Reason for Proposal

The record shows that the purchased gas adjustment provision is proposed by the company as an inexpensive and simplified method of adjusting charges to retail customers for gas service in accordance with decreases or increases in the wholesale price of natural gas purchased by the company. The company contends that such a method is needed because (a) the cost of natural gas is the largest single element in the company's operating expenses; (b) the wholesale price of natural gas purchased by the company is subject to change on relatively short notice and is not subject to the regulation of this commission or of any other commission having jurisdiction over the retail rates of the company; and (c) it is advantageous to have such changes in the cost of natural gas reflected promptly in charges to retail customers.

The witness for the commission also testified that in his opinion the proposed purchased gas adjustment provision was desirable and essential to the effective regulation of retail gas rates in the interest of both the consumers and the company.

Changes in Cost of Natural Gas

The company buys its supply of natural gas from Atlantic Seaboard Corporation, a subsidiary of The Columbia Gas System, Inc. The rates which Atlantic Seaboard charges the company are subject to regulation by the Federal Power Commission under the Natural Gas Act (52 Stat 821; 15 USCA § 717). Changes in the wholesale price of natural gas may become effective under the act on relatively short notice. Decreases may become effective within thirty days, and increases within six months. Furthermore, if an increased price established by a natural gas pipeline company under the act is found by the Federal Power Commission to have been too

high, such commission has the jurisdiction to determine the proper wholesale price and to order a refund to be made by the natural gas pipeline company for any charges collected in excess of the price found to be just and reasonable.

Since 1951 there have been five changes in the wholesale price of natural gas to the company. Some of the changes were increases and some were decreases. As a result of two of the increases, the company applied to this commission for general rate increases which were authorized in 1952 and 1953, respectively, by Orders Nos. 3876 and 3989. A settlement of the wholesale price increase which was largely responsible for the increase in retail rates authorized by Order No. 3989 has recently been agreed upon and approved by the Federal Power Commission. The rates previously charged by Atlantic Seaboard were found to have been too high, and the company received a refund of part of the overcharges paid. As a result, the company filed a plan for the reimbursement of its retail customers for a portion of the increased charges for gas service authorized by Order No. 3989 —which plan is the subject of a separate Order No. 4089, post, p. 111.

A further change in the wholesale price of natural gas, which became effective on March 1, 1954, has recently been settled and was approved by the Federal Power Commission by order issued on June 24, 1954, in Docket No. G–2275. As a result of such change, the wholesale prices for natural gas are reduced effective March 1, 1954. It is expected that this reduced wholesale price will apply for a period extending to November 1, 1954, at which time the wholesale price of gas is expected to change again, as a result of the filing by Atlantic Seaboard in May, 1954, of a new tariff. Such change will be an increase in wholesale prices which, in turn, will be collected under the provisions of the Natural Gas Act with the possibility of a refund later to the company.

The record shows that changes in this most important element of operating expenses have a material effect on the earnings of the Company, and can only be reflected in increases or decreases in retail rates under present procedure after time-consuming and expensive investigations by the commission of all elements related to a determination of fair and reasonable rates. The proposal for automatic adjustment for increases and decreases in the cost of natural gas will not eliminate the necessity for future rate proceedings, by reason of the possible effect of changes in other elements of cost, but it should minimize the number of such proceedings which might otherwise result.

The record shows that the purchased gas adjustment provision is very similar, in its operation, to the fuel adjustment provisions presently included in certain of the rate schedules for electric service approved by this commission, as well as in many rate schedules throughout the country; also that the necessity for developing some form of automatic regulation of gas rates, to reflect changes in the wholesale price of natural gas, is receiving considerable attention by many of the state regulatory commissions of the country. Purchased gas adjustment provisions apply to the retail rates of thirty-three

gas utilities scattered through eighteen states.

Operation of the Adjustment Provision

[1] The company requests that the adjustment provision be authorized for inclusion in its rate schedules and general service provisions as of July 1, 1954. Similar purchased gas adjustment provisions proposed by the company to apply to its retail rates in Maryland and Virginia, have been filed with the Public Service Commission of Maryland and the State Corporation Commission of Virginia, respectively. In each such jurisdiction the company is also asking that the adjustment provisions be made effective July 1, 1954.

Under the proposed purchased gas adjustment provision, adjustments in charges for retail gas service would be made automatically to reflect increases and decreases in the wholesale price of natural gas, when such increases or decreases amount to $100,000 or more per annum. If the company should receive a refund from Atlantic Seaboard representing excess payments for a prior period, the adjustment provision provides for credit adjustments on future retail bills to be made automatically, in a manner which would pass on to retail customers the benefits of such a refund to the company. Any decreases or increases in retail charges may become effective with meter readings taken on and after the thirtieth day following the effective date of the change in wholesale prices. The plan also provides that at least ten days prior to any purchased gas adjustment, the company shall file with the commission certain detailed information showing the basis for the proposed change in retail rates.

The purchased gas adjustment clause makes no provision for collecting from the customers an increase in gross receipts tax related to any increase in revenues based on the increased cost of natural gas. Nor does the plan provide for including interest in any refund to the customers even though the company receives interest on refunds to it from Atlantic Seaboard Corporation. The record shows that the former would more than offset the effect of the latter, thereby producing a net result favorable to the customers. Further, that to include provision for such related items would unduly affect one of the important attributes of the proposal, that of its simplicity of application. The commission accordingly finds and concludes that the inclusion of interest in refunds to the customers should not be required, and that such exclusion is not adverse to the public interest.

Initial Rates in the Adjustment Provision

A purchased gas adjustment provision, when established, must be based on retail rates which meet the tests required by law. Such rates must be just and reasonable. Any increase or decrease under the operation of such a provision will reflect only the change in the wholesale price of natural gas, and the equity of the basic rate will remain unchanged.

Present retail rates of the company were established by Orders Nos. 3989 and 3992. In its findings and opinion set forth in Order No. 3989, the commission concluded that the increased retail rates authorized thereby would cover all costs of operation of the company applicable to service in the Dis-

trict of Columbia and provide a return on average net investment of 6.25 per cent per annum for the calendar year 1953. Testimony adduced in the present proceedings shows that system operations for the year 1953, adjusted to reflect increased retail rates for the full year, changes in the wholesale price of natural gas, and increased labor rates, resulted in a rate of return earned of 5.57 per cent. The record also shows that the earnings of the company for the year 1953, on the basis of operations in the District of Columbia only, and adjusted as aforesaid, would have produced a rate of return of 6.13 per cent per annum. In view of the close proximity of the pro forma earnings for the calendar year to the rate of return which the commission found would be earned by the rates established pursuant to Order No. 3989, and giving consideration to the weather experienced in 1953, the commission finds that retail rates in the District of Columbia authorized by Order No. 3992 are just and reasonable, and provide a proper basis, or starting point for the operation of the purchased gas adjustment provision.

The retail rates authorized by Order No. 3992 were derived from costs of operation of the company which included the cost of natural gas purchased under a wholesale tariff comprised of a rate of $2.60 per Mcf per month, for billing demand charge, and 25.7 cents per Mcf for all gas purchased. As set forth in the purchased gas adjustment provision, the basic wholesale rate, from which any future changes in wholesale prices would be computed, is the rate of $2.60 per Mcf per month demand charge and 25.7 cents per Mcf commodity charge. As of March 1, 1954, the wholesale price of gas was changed and is expected to be changed again very shortly. The expected change is a result of an agreement between Atlantic Seaboard and its wholesale customers reached on June 3, 1954, and approved by the Federal Power Commission on June 24, 1954. The revised wholesale price is effective retroactively as of March 1, 1954; it consists of a demand charge of $1.96 per Mcf per month, and a commodity charge of 31.19 cents per Mcf, with a heat adjustment clause based on 1,150 Btu content of gas. Under such agreed wholesale rates, the price of gas to the company would be lower than the basic rate set forth in the purchased gas adjustment provision. However, such lower wholesale price effective as of March 1, 1954, is expected to be superseded by higher rates effective November 1, 1954.

Effect of Provision

If the adjustment provision becomes effective, and based on the revised wholesale rates effective as of March 1, 1954, an automatic downward adjustment will be made in retail charges to gas customers. The record shows that such reduction in the wholesale price of natural gas to the company will result in a reduction in retail charges to the customers of the company of .37 cents per therm. The company will apply the downward adjustment to gas bills beginning with meter readings taken on and after August 1, 1954. Under the operation of the adjustment provision, retail charges to customers would continue to show the reduction of .37 cents per therm from August 1, 1954, until the

next change becomes effective under the adjustment provision. The next change is expected now to become effective with meter readings taken thirty days after November 1, 1954—the date when the wholesale price of natural gas is expected to increase. The increase in the wholesale price of natural gas, when translated into the purchased gas adjustment effective December 1, 1954, will be an increase in retail charges above the basic rate of approximately .56 cents per therm.

For the period between March 31 and August 1, 1954, retail customers will receive reductions in charges for gas used in the corresponding months of 1955—April through July.

Conclusions

[2] In considering the proposal of the company, the commission faces the problem of deciding whether regulation of retail charges for gas can best be accomplished by the orthodox and lengthy proceedings heretofore followed, or by the simplified and shortened method set forth in such a purchased gas adjustment clause. The commission clearly has the power to authorize the use of shortened proceedings, in paragraph 18 of the Act of Congress approved March 4, 1913. The sliding-scale arrangement under which rates for electricity in the District of Columbia have been determined for many years is well known. While the purchased gas adjustment provision is not a sliding-scale arrangement, it does possess some of the desirable characteristics of a sliding scale in that it affords a convenient, equitable, and inexpensive method of adjusting retail charges.

Of the total operating and maintenance expenses of the company, the cost of natural gas is nearly half. The level of the wholesale price of natural gas lies beyond the control of the company and of this commission; it is determined almost entirely by federal regulation. An attractive feature of the purchased gas adjustment clause is that it operates to incorporate in charges, to retail customers, decreases and increases in a gas utility's predominant item of expense without in any way enlarging the return earned by the company.

The provision, moreover, does not take the place of conventional rate proceedings whenever they may be required. The commission reserves the right at all times to investigate the levels of the company's retail rates. Whenever the commission's investigations indicate that retail rate levels of the company, as they may be altered from time to time by application of the purchased gas adjustment provision, may be either too high or too low, the commission may proceed to institute full formal hearings.

After full consideration of the evidence of record the commission finds and concludes that for the purpose of providing an effective and inexpensive method of adjusting retail rates to the extent of decreases or increases in the wholesale price of natural gas, the purchased gas adjustment provision is, in the words of the governing statute, a "financial device that may be practicable and advantageous to the parties interested." Accordingly, the commission concludes that the purchased gas adjustment provision proposed by the company as a part of the rate schedules and general service provisions of the company is just and reasonable, is in the public interest, and is consistent with the purposes of all applicable laws.

Therefore, it is *Ordered,*

Section 1. That Washington Gas Light Company be authorized to establish as of July 1, 1954, a general service provision in the form attached hereto as Appendix A [omitted herein], prescribing for gas service in the District of Columbia (a) adjustment of charges for gas sold in accordance with changes in the price of gas purchased by Washington Gas Light Company, and (b) credit adjustments to bills to effectuate refunds to its customers;

Section 2. That all rate schedules of the company shall be modified by the addition thereto of the following legend:

Purchased Gas Adjustment

The charges specified in this schedule shall be subject to an adjustment per therm for increases or decreases in the supplier's rate for purchased gas, in accordance with § 16 of the General Service Provisions;

Section 3. That within ten days the company shall file new rate schedules and general service provisions embodying the changes herein authorized.

DISTRICT OF COLUMBIA PUBLIC UTILITIES COMMISSION

Re Washington Gas Light Company

P.U.C. No. 3517/6, Formal Case No. 437, Order No. 4089
June 30, 1954

APPLICATION *by gas company for approval of plan for making refunds to retail customers; granted. For decision on rate schedule, see ante, p. 105.*

Reparation, § 39 — Refund of overcharges — Credit adjustments on bills.

A natural gas distributing company which had received a rate increase based upon the increased cost of gas purchased by it was authorized, upon obtaining a refund from its supplier, to reimburse its customers by credits on gas bills for months corresponding to the months during which it collected the higher rates subject to refund.

By the COMMISSION:

Nature of Proceeding

On May 26, 1954, Washington Gas Light Company (hereinafter referred to as the "company") filed an application in the form of a letter addressed to the commission requesting approval of a plan for making credit adjustments to customers' bills representing reimbursement of portions of retail charges collected by the company for gas sold during the period May 29, 1953, through February 28, 1954. By a separate application also filed on May 26, 1954, the company requested authority to establish a purchased gas adjustment provision (P. U. C. No. 3551—Formal Case No. 436). Since

the two applications were related, the commission consolidated them for hearing.

After appropriate notice, a formal public hearing was held on June 25, 1954, at which representatives of the Maryland Public Service Commission and the State Corporation Commission of Virginia were present.

A petition for leave to intervene was granted to the United States of America through its general services administration, whose counsel offered no testimony but expressed approval of the company proposals as fair and equitable.

Testimony for the company was presented by Everett J. Boothby, president, and Otis H. Ritenour, vice-president-finance. Testimony for the commission was presented by J. W. Falk, executive accountant and auditor.

Reason for Proposal

On November 28, 1951, and November 21, 1952, Washington Gas Light Company filed applications with this commission for general increases in retail gas rates in the District of Columbia. Investigations were instituted by the commission and formal hearings held, the proceedings being designated as Formal Cases Nos. 414 and 422, respectively. In Formal Case No. 414 the commission entered its Orders Nos. 3876 and 3879, approving and authorizing increased retail rate schedules effective on meter readings taken on and after May 8, 1952. In Formal Case No. 422, the commission entered its Orders Nos. 3989 and 3992, authorizing and approving increased retail rates effective with meter readings taken on and after May 29, 1953.

In its applications in both of such proceedings the company stated that a substantial portion of the increased cost of service which necessitated the application for higher retail rates was the direct result of increases in the wholesale price of natural gas required to be paid by the company to its supplier, Atlantic Seaboard Corporation. The company stated further, in such applications, that in the event it received a refund from Atlantic Seaboard Corporation of some part of the increased cost of natural gas which the company had collected from retail customers in the form of higher retail charges, the company would reimburse its customers in a manner to be submitted to and approved by this commission.

Proposed Refunds

Refunds were received by the company from Atlantic Seaboard on March 5, 1954, in accordance with an order of the Federal Power Commission accepting a compromise settlement of rate proceedings relating to two increased wholesale tariffs of Atlantic Seaboard Corporation. The first increased tariff was effective from March 7, 1952, through February 14, 1953. The second increased tariff became effective February 15, 1953, and extended until February 28, 1954.

For the gas purchased by the company between March 7 and February 14, 1953, the company received a refund of $281,485.75. The company contends, however, that no adjustment in retail rates should be made as a result of such refund. The reason is that the cost of gas to the company, even under the lower wholesale rates established by the Federal Power Commission order, was more than the cost

of purchased natural gas actually included in the cost of service of the company for the test period on which this commission based its findings and ordered the increased retail rates established in Formal Case No. 414. Witness Falk for the commission testified that on the basis of his studies he had also arrived at the conclusion that no refund is due the customers for this period.

For gas purchased by the company between February 15, 1953, and February 28, 1954, the reduction in cost to the company on a system basis amounted to $1,393,050.72, of which $1,297,185.74, exclusive of interest, was represented by an actual refund received on March 5, 1954, and $95,-864.98 was represented by a direct reduction in the cost of purchased gas as billed for the month of February, 1954. The company presented an exhibit showing that on the basis of 1953 volumes of gas purchased, it received a reduction in the cost of natural gas equivalent to .47 cents per therm of gas sold at retail by the company.

Since the related increase in retail rates in the District of Columbia was not effective until May 29, 1953, the company proposed to refund to its customers that portion of the refund received from Atlantic Seaboard Corporation collected from its customers between May 29, 1953, and February 28, 1954, in the form of higher retail rates, in the total amount of $474,-149.

Witness Falk for the commission testified that in his opinion the company had properly limited the refund to its District of Columbia customers to the period from May 29, 1953, to February 28, 1954, and that the amount of $474,149 represented the proper amount to be refunded. This amount is equivalent to $631,275 on an annual basis, or approximately 85 per cent of the annual increase in retail gas rates of $752,000 which became effective May 29, 1953, in accordance with Order No. 3992 of this commission.

Proposed Method of Refund

The company proposes to reimburse its customers in the District of Columbia by credits on gas bills rendered based on meter readings taken on and after July 1, 1954. The credits will be made for months corresponding to the months during which the company collected higher charges from its retail customers which are subject to refund, that is for the period from May 29, 1953, through February 28, 1954. However, in view of the fact that it has not been practicable for the company to complete arrangements in time to make the first credits on bills in May, 1954, the company will commence the adjustment period in July, 1954, and include on the July bills the total of the credit adjustments applicable for May and June as well as for the month of July.

The record shows that the amounts subject to refund by months will be determined by applying the previously referred to unit reduction of .47 cents per therm to therm sales to customers during the period from May 29, 1953, to February 28, 1954. Based on the monthly amounts thus determined, a unit credit per therm will be developed based on estimated therm sales to customers for the months July, 1954, through February, 1955, which will be applied to the therm consumption for each customer during the pe-

riod, to the end that the total amount of $474,149 will be credited to the customers. Other possible methods of making the refund were explored but were not recommended in view of the expense involved. It is clear from the record that the proposed method of refunding is a reasonable and practicable method of accomplishing the refund from the standpoint of the customers as a whole.

Conclusions

Based on a full consideration of the record in this proceeding, the commission finds and concludes that the proposal submitted by the company for the refund to customers in the District of Columbia of an aggregate amount of $474,149, in the form and manner set forth in the application, is in the public interest.

Therefore, it is *Ordered*:

Section 1. That the method of reimbursement to customers of the District of Columbia of the aggregate amount of $474,149, as set forth in the application of Washington Gas Light Company dated May 26, 1954, be and it hereby is approved and authorized; and

Section 2. That credits to customers' bills in accordance with the plan submitted by Washington Gas Light Company be commenced by such company with bills rendered pursuant to meter readings taken on and after July 1, 1954, and be continued until the aggregate amount of $474,149 is returned to customers.

CONNECTICUT PUBLIC UTILITIES COMMISSION

Re New Canaan Water Company

Docket No. 8920
June 9, 1954

APPLICATION *by water company for authority to increase rates; modified increase authorized.*

Return, § 25 — Comparative returns.

1. The commission cannot fix a fair return for a given company solely by the use of a predetermined percentage figure reached by comparison with what has been allowed other companies in other communities, since a fair return might differ not only between companies but might vary from time to time for the same company, p. 116.

Return, § 10 — Net book cost — Earnings requirements.

2. A return calculated on net book cost only, without regard for the earnings requirements brought about by the capitalization of a water company, would overstate the revenue requirements necessary for the company to maintain its financial integrity, p. 116.

Return, § 44 — Hazardous nature as factor — Small water company.

3. Additional return because of a water company's alleged hazardous nature

is not justified, where the unfavorable factor of the company's small size is offset by the historical earnings record, the tendency of earnings to improve, and the stable nature of the company's business, p. 117.

Rates, § 143 — Reasonableness — Cost of service.

4. In measuring the reasonableness of present and proposed schedules, the commission must consider their adequacy to provide for the cost of operating and maintaining the property, including depreciation and taxes, a reasonable return to investors, and a balance to transfer to surplus, p. 117.

Return, § 115 — Water company.

5. A return of 4.5 per cent was considered reasonable for a water company, p. 118.

Expenses, § 28 — Accounting services — Small water company.

6. The hiring of professional accountants to perform accounting duties formerly carried out by company employees is not unreasonable and the expense should be allowed as an additional administrative expense for a small water company, p. 118.

Rates, § 619 — Water company — Fire protection.

7. A water company should be authorized to increase rates for fire protection service where the proposed rates are reasonable and would amount to only 10 per cent of the total revenues authorized, p. 120.

Rates, § 612 — Water company — Flat rate increase — Construction.

8. A water company should be authorized to increase flat rates for water used for construction purposes upon a showing that such increase is reasonable and would add only $90 to the company's annual revenues, p. 120.

By the COMMISSION: By a schedule of rates and charges filed to become effective January 1, 1954, The New Canaan Water Co., a public service company as defined in § 5390 of the General Statutes, Revision of 1949, hereinafter referred to as the company, seeks authority to increase its rates and charges for water service to yield an additional $6,700 in annual revenues based on 1953 experience.

The commission on its own motion entered upon an investigation of the reasonableness of the proposed schedule of rates and charges and by its notice of hearing and order of suspension, dated November 18, 1953, suspended the operation of the proposed rates pending its conclusions thereon, such action in the opinion of the commission appearing necessary in the public interest.

The matter was assigned for public hearing at the office of the commission in Hartford on December 21, 1953. Notice of the pendency of the proposed rate increase and of the public hearing thereon was given to the company, to the town of New Canaan, and to such other parties as the commission deemed necessary, and by advertisement in a newspaper having a circulation in New Canaan, all as fully appears from the commission's order of notice and return of its secretary thereon, on file. At the time and place set for the hearing, the company appeared by counsel. The First Selectman of the town of New Canaan appeared as an intervenor. The hearing

was continued to January 19, 1954, and was concluded on that date.

A description of the area served by the company, the physical characteristics and a brief history of the company are contained in Docket No. 8576, issued January 18, 1952, in which the rates of this company were last before the commission for its consideration.

The present rates and charges which apply to all classes of the company's customers became effective in 1931 with the exception of fire protection charges. These became effective early in 1952 as a result of the order of this commission in Docket No. 8576, *supra.*

The company maintains among other things that the cancellation by the commission of the schedule of increased rates and charges for general service, as filed in 1951, has resulted in the inability of the company to realize a fair rate of return on the plant dedicated to the public service. The company bases its claim for rate relief on the alleged need for additional income to enable it to earn at a rate equivalent to 5.1 per cent on a net book rate base on December 31, 1954. It claims that the present schedule of rates and charges enabled the company to earn only 4.19 per cent in 1953 and that in 1954 it would be only 4.11 per cent. This level of earnings, it maintains, is less than just and reasonable.

[1] A fair rate of return for a given company cannot be fixed solely by the use of a predetermined percentage figure reached by comparison with what has been allowed other companies in other communities by this or any other commission. Indeed, a fair rate of return might differ not only between companies but might vary from time to time for the same company. Each case must, therefore, be determined on its own merits.

[2] Applying this reasoning to the instant proceeding, it appears that a return calculated on net book cost only, without regard for the earnings requirements brought about by the capitalization of the company, would overstate the revenue requirements necessary for the company to maintain its financial integrity. This may be demonstrated readily when the 1953 return of 4.19 per cent is reduced to dollars. The utility operating income which results in such a rate of return is $19,860, as will appear more fully in income statements reproduced below. This operating income after all income deductions would enable the company to pay a dividend of $9,000 which is equal to 6 per cent on the par value of its common capital stock and transfer $1,793 to unappropriated earned surplus.

At the end of 1953, the company had gross plant of approximately $680,400, a depreciation reserve of $191,660, and customers' contributions of some $34,200, or a net plant of some $454,540. The company's capitalization, however, consists of common capital stock of $150,000, made up of 6,000 common shares $25 par and $200,000 series A and $42,500 series B 3¾ per cent first mortgage bonds due April 1, 1970. In addition, total surplus consists of $91,877 of which $33,875 is earned surplus, $11,750 is capital surplus, $12,042 premium on capital stock, and $34,209 represents contributions in aid of construction.

The management of the company has recently changed and it is the present management's announced intention to establish a relatively uniform dividend policy in contrast to the fluctuating policy, on which this commission commented in its Docket No. 8576, *supra*. To this end, a limitation on dividends equal to 80 per cent of net income has been established by the board of directors. The company claims that this dividend policy, in order to be successful in preserving the company's financial integrity, should provide for sufficient net income to enable it to pay a divident equivalent to 8 per cent on the par value of the outstanding common capital stock.

[3] The company points to the unfavorable consequences which result from its small size and claims that an increase in expenses which might be inconsequential for a larger company would be of considerable importance to this company and might even result in an impairment of its credit. It emphasizes, for example, that its earned surplus as of December 31, 1953, was $33,875 and that under the terms of its series A and B bond indenture no dividends may be paid if the payment will reduce the earned surplus below $27,000. It claims that a succession of two unfavorable years might well result in reducing earned surplus to the $27,000 figure, thereby preventing the company from making dividend payments in that year to the detriment of its financial integrity.

Offsetting the unfavorable factor of this company's size, however, are the historical earnings record of the company, the tendency of its earnings to improve, and the nature of its business. As disclosed in this commission's finding in Docket No. 8576, *supra*, on page 9, between 1946 and 1950, both inclusive, operating revenues increased by 25 per cent while operating expenses, including depreciation and taxes, increased only 20 per cent resulting in an increase of 32 per cent in utility operating income and after other net revenue deductions, an increase in net income of 47 per cent in the same period. The years 1951 and 1952 were less favorable but according to the company's own testimony 1953 will show utility operating income of $19,859.74 while 1954 under present rates will show $20,559.

As will be disclosed from the income statements reproduced below, the company's estimated experience in 1954 shows an improvement in operations generally even after making provision for the amortization of certain expenses more fully discussed below.

Finally, the low percentage of commercial revenues, the absence of industrial revenues, and the stable nature of the company's business give to this company an advantage not enjoyed by many others of comparable size. We feel, therefore, that there is no particular reason to consider this company as a particularly hazardous risk. As a matter of fact, it is probably well situated from an earnings point of view.

[4] In making the essential determination whether the presently effective schedule of rates and charges yields a fair return or whether higher rates are necessary and, if so, to what extent, we must consider all of the factors which have already been discussed. That is to say, when measuring the reasonableness of the present and proposed schedules of rates and charges we must consider their

adequacy to provide for the cost of operating and maintaining the property, including a provision for depreciation and taxes, a reasonable return to investors, and a balance to transfer to surplus, Federal Power Commission v. Hope Nat. Gas Co. (1944) 320 US 591, 51 PUR NS 193, 88 L ed 333, 64 S Ct 281.

[5] Viewed in this light, we conclude that the present schedule of rates and charges are less than just and reasonable. On the other hand, a schedule of rates and charges which will yield revenues sufficient to provide utility operating income equivalent to 4.5 per cent will enable the company to pay a reasonable dividend and have a satisfactory margin to transfer to surplus. We see no reason, therefore, for concluding that a rate of return of 5.1 per cent is necessary for this company. For this reason, we find rates which will yield a return of 5.1 per cent are more than just and reasonable and rates yielding a return of approximately 4.5 per cent are no more than just and reasonable.

We proceed, therefore, to consider the company's actual experience and whether these revenues will be realized under present rates and charges.

In 1953, the company's actual experience showed revenues of $80,764 annually. After operating revenue deductions of $60,904, the company had utility operating income of $19,860 which, after all income deductions, resulted in $10,793 net income. In 1953, the company paid a dividend of $7,800 on the outstanding common capital stock with a balance transferred to surplus of $2,993. This dividend amounts to 5.2 per cent on the par value of the outstanding shares and in the opinion of the company is less than sufficient while the utility operating income earned in 1953 is, in the opinion of the company, less than a fair return on property used and useful in providing public service. Nevertheless, the dollar amount of utility operating income shows an improvement over the preceding year 1952, when $17,491 of utility operating income was earned.

[6] The operating expenses incurred in 1953, reflect only part of a year's experience with certain increases in several accounts which will be reflected for an entire year in 1954. In its presentation of its case, the company has made a retroactive adjustment of these expenses and applied them pro forma to the year 1953 expenses. The adjustments are principally in labor and administrative and general expenses. The labor expense is spread through various accounts and amounts in total to a $403 increase for the pro forma year 1953. This is the result of a 6.2 per cent increase in wages for outside labor, effective May 1, 1953, and $5 per week increase in wages paid the secretary, effective October 1, 1953. The other adjustments, including administrative and general expenses, amount to $1,595, or a total of $1,998 from both sources. The increases in administrative and general expenses are brought about largely by expanding the engagement of a firm of accountants and auditors who will perform the usual professional accounting services for the company in a more detailed manner than heretofore. Prior to the new arrangement with this firm, such accounting duties as were performed were carried out by employees of the company along

with their other duties, and the accountants merely performed a formal balance sheet audit. With the new management which has recently taken over operation of the company, however, there has come a realization that such a method is inadequate to keep the company abreast of its financial position and otherwise to supply it with necessary financial data. The engagement of such professional services does not appear unreasonable and the attendant expenses have been allowed by this commission. In the same manner, the increases in wages reflect minor upward adjustments in several wage scales and salaries and are not unreasonable. For example, the president of the company still receives no salary for his duties and the salaries of other administrative officers are relatively nominal.

In making this adjustment from 1953 actual to 1954 estimated, the pro forma expenses already described were further increased by the amount of known charges which would occur in 1954 amounting in total to $548. Lastly, the 1954 experience was adjusted upward by a provision for amortization over a 4-year period of the cost of making repairs on a roadway leading to one of the company's reservoirs amounting to $825 per year and a similar amortization for the cost of a distribution system map amounting to $125 per year. The upward adjustment in the 1953 pro forma expenses while minor nevertheless has been examined carefully and appears reasonable while the allowance for amortizing the cost of the roadway and distribution map appears to be a necessary item of expense and has been allowed as reasonable. Mention should be made here of the amortization of the cost of this rate proceeding amounting in total to $11,000 which will be amortized over a 5-year period at a rate of $2,200 per year.

After making upward adjustments in operating revenues at the rate of 6.2 per cent per year which corresponds with the increase of the company's operating revenues in 1953 as compared with 1952, the company will show in 1954, under the present scale of rates after making adjustments as already described, operating revenues of $85,910, operating revenue deductions of $65,351, with resulting operating income of $20,559.

Under the requested schedule of rates and charges, the corresponding figures would be operating revenues $93,106, operating revenue deductions $67,585, and utility operating income $25,521.

An examination of these figures and comparison with the company's rate base calculated in the manner set forth in Table II, below, reveals that for the year 1953 the experience of the company resulted in a rate of return of 4.19 per cent while in 1954, at present rates, the company estimates it will earn 4.11 per cent and under proposed rates 5.1 per cent. We have already set forth our conclusion and the reasons, therefore, that a rate of return of 4.5 per cent is sufficient to enable the company to maintain its financial integrity and is a fair return for it. There appears no reason, therefore, for the company to realize revenues which will yield a rate of 5.1 per cent on its property used and useful and devoted to public service. We have adjusted the company's revenues, therefore, to show a rate of return of

4.5 per cent on the rate base at the end of 1954 and in our order have provided for the company to file such schedule as would meet the approval of this commission which would realize that level of rates and charges.

We show below, in Table I, the details of the company's operating experience for the year 1953 under present rates and for the year 1954 under present rates, proposed rates, and under rates calculated to yield revenues in the amount authorized by the commission:

TABLE I

Income Statements

	1953 Actual Present Rates	1954 Estimated Based on Present Rates	1954 Estimated Based on Proposed Rates	1954 Estimated Based on Authorized Rates
Operating Revenues				
Metered Sales	$71,985.23	$76,801.00	$82,767.00	$78,366.00
Flat Rates Sales	854.04	900.00	990.00	990.00
Private Fire Protection	1,156.24	1,187.00	1,330.00	1,330.00
Public Fire Protection	6,768.21	7,022.00	8,019.00	8,019.00
Total Operating Rev.	$80,763.72	$85,910.00	$93,106.00	$88,705.00
Operating Rev. Deductions				
Operating Expenses	$38,048.90	$41,315.00	$41,315.00	$41,315.00
Depreciation	9,222.15	9,814.00	9,814.00	9,814.00
Taxes—Federal Income	4,113.05	4.084.00	6,210.00	4,916.00
Taxes—Other	9,519.88	10,138.00	10,246.00	10,160.00
Total Operating Rev. Deductions	$60,903.98	$65,351,00	$67,585.00	$66,205.00
Utility Op. Income	$19,859.74	$20,559.00	$25,521.00	$22,500.00
Other Income	169.59	175.00	175.00	175.00
Total	$20,029.33	$20,734.00	$25,696.00	$22,675.00
Income Deductions	9,236.48	9,144.00	9,144.00	9,144.00
Net Income	$10,792.85	$11,590.00	$16,552.00	$13,531.00

We show in Table II, below, the rate base for the company at the end of the years 1953 and 1954, the latter partly estimated.

We point out again that our conclusions in this proceeding have not been reached exclusively on the basis of a percentage return on rate base. The calculation of the rate base in included, therefore, for information purposes and to indicate that the utility operating income which we have found reasonable would yield a return of 4.5 per cent based on this rate base.

TABLE II

	12/31/53	12/31/54
Water Utility Plant	$642,199	$720,000
Construction Work in Progress	38,208	....
Total Utility Plant	$680,407	$720,000
Deductions		
Reserve for Depreciation	$191,659	$201,473
Customers' Contributions	34,209	34,209
Total Deductions	$225,868	$235,682
Net Utility Plant	$454,539	$484,318
Working Capital	5,000	5,200
Materials and Supplies	14,000	14,000
Total	$473,539	$503,518
Rate Base Rounded	$473,500	$500,000

[7, 8] The company's schedule of proposed rates and charges includes,

among other things, a provision for increases in fire protection service. As we said in Docket No. 8576, *supra,* where the company's charges for fire protection service were most recently considered, the company's then revenues from fire protection service amounted to 8.84 per cent of total revenues. As a rough estimate of the reasonableness of the contribution which fire protection service makes to the over-all revenues, we indicated that a percentage between 12 to 20 per cent was not unreasonable. This percentage, of course, was understood at that time, as it is now, to vary with circumstances, including, among others, the size of the company. The proposed rates for fire protection services amount to approximately 10 per cent of the total revenues authorized. This does not appear unreasonable and we find that such an increase should be authorized for application to the company's fire protection charges. The increases in flat rate sales would add only $90 on an annual basis and likewise appear reasonable. This rate is for water used for construction purposes.

We find, therefore, that the schedule of rates and charges presently effective by the company will yield less than a fair return on the company's properties devoted to public service. We find further that the proposed schedule of rates and charges, with the exception of the increased rates for fire protection services and flat rate sales, are more than just and reasonable and that it, therefore, should be canceled. Our order below so provides. We further find that a schedule of rates and charges calculated to yield gross revenues of $88,705 which after all expenses including taxes and depreciation set forth above will yield a rate of return of 4.5 per cent for the year ending December 31, 1954, on the company's property used and useful in public service, is no more than just and reasonable and should be allowed. Our order below provides for the filing by the company of such a schedule and for the vacation of our order of suspension in so far as it relates to rates for fire protection services and for flat rate sales.

ORDER

It appearing, that by a schedule of rates and charges filed to become effective January 1, 1954, The New Canaan Water Company seeks to increase its revenues from all classes of customers by approximately $6,700 per year based on 1953 experience, and,

It appearing further, that the matters and things contained in said application have been the subject of investigation and public hearing and that the commission has made its findings of fact and conclusions of law thereon which are hereby made a part hereof,

Now, therefore, it is ordered, that the said schedule of rates and charges, with the exception of charges for fire protection and flat rate sales, be, and it hereby is, canceled without prejudice to the filing by The New Canaan Water Company of a revised schedule of rates and charges calculated to yield additional revenues from residential and commercial customers of about $1,600 based on 1954 estimated experience, such schedule of rates and charges to become effective on all water sold on and after the beginning of

the next billing period, June 1, 1954, and

It is further ordered, that the order of suspension, in so far as it relates to charges for fire protection services and flat rate sales, be, and it hereby is, vacated, and

It is further ordered, that with the exception of the approval of said revised schedule of rates and charges which will be submitted in accordance with this order, this proceeding be, and it hereby is, closed.

We hereby direct that notice of the foregoing be given by the Secretary of this Commission by forwarding true and correct copies of this document to parties in interest, and due return make.

WISCONSIN PUBLIC SERVICE COMMISSION

Re Milwaukee & Suburban Transport Corporation

2-SR-2740, MC-1496
May 13, 1954

APPLICATION *by transit corporation for authority to increase rates; temporary increase authorized. For decision on application for rehearing, see post, p. 124.*

Rates, § 631 — Emergency increase — Transit company.

1. A state of emergency was found to exist justifying a temporary rate increase where a transit company's operating ratio was 97.6 per cent and where the company had failed by a wide margin to meet its preferred stock dividend requirement for the first quarter of the current year, p. 123.

Rates, § 504 — Transit — Extent of temporary increase.

2. Temporary increases of 5 cents and 3 cents, respectively, in adult and children cash fares and increases of 15 cents in the prices of adult and school weekly passes were found to be just and reasonable for a transit company experiencing serious financial difficulty, p. 123.

By the COMMISSION: The Milwaukee & Suburban Transport Corporation, Milwaukee, filed an application with the commission on February 18, 1954, for authority to increase its fare structure on trackless trolley, street railway, and bus lines operated in the city of Milwaukee and adjacent suburban areas, all within Milwaukee county.

Pursuant to due notice, an initial hearing was held on April 12, 1954, in Milwaukee before examiner Samuel Bryan.

At the hearing applicant proposed that the single-fare-area adult cash fare

be increased from 15 to 20 cents, the children's cash fare be increased from 7 to 10 cents, and the price of all weekly passes be increased 40 cents each.

On May 5, 1954, the applicant filed a petition with the commission requesting authorization to make effective immediately as an emergency measure the proposed increases in fares outlined above on a temporary basis. If temporary authority is granted, applicant stipulated that, in the event any lesser increase in weekly passes is subsequently approved by the commission, it would refund to any person returning or surrendering weekly passes within 6 months after the close of the week for which the weekly pass was purchased at the emergency price, the difference between such emergency price and the price of such pass fixed by the commission's final order in this proceeding.

A reply to the petition was filed by the city of Milwaukee on May 7, 1954, opposing the granting of a temporary increase.

In support of its petition, the applicant submitted an income statement by months, and a combined statement for the first three months of 1954.

The Commission finds:

[1] 1. The company is now experiencing an operating ratio of 97.6 per cent and it has failed to meet the preferred stock dividend requirement for the first three months of 1954 by the amount of $15,236.20. The net operating revenue, after income taxes, for the first three months of 1954, was $111,292, compared to $307,620 for the corresponding three months in 1953.

2. An emergency exists which warrants an immediate increase in fares. The proposed increases are greater than deemed necessary on a temporary basis. Accordingly, the grant herein will be limited to the proposed increases in the adult and children's cash fares, and an increase of 15 cents in all adult and school weekly passes.

3. The Milwaukee & Suburban Transport Corporation is in need of additional revenue during the interim period pending final determination of the increases proposed in this proceeding in order to prevent injury to the business or interests of said company and the people of the state.

[2] 4. An increase in the present fares authorized in dockets 2–SR–2629 and MC–1467 (September 17, 1953, 38 Wis PSC 423), of 5 cents and 3 cents in the adult and children's cash fares, respectively; and an increase of 15 cents in the price of all adult and school weekly passes will be just and reasonable as emergency increases during the interim period.

The Commission concludes:

1. That an emergency exists within the meaning of § 195.10, Statutes.

2. That it has jurisdiction under §§ 194.22 and 195.10, Statutes, to issue the following order pursuant to the above findings of fact.

Order

The Commission therefore *Orders*:

1. That the Milwaukee & Suburban Transport Corporation be and hereby is authorized to increase the single-fare-area adult cash fare from 15 to 20 cents, the children's cash fare from 7 to 10 cents; and to increase the price of all adult and school weekly passes by 15 cents each.

2. That the order herein shall become effective on the date of issuance, and that tariff changes publishing the

increased fares may be filed and made effective upon not less than one day's notice to the commission and the public.

3. That the Milwaukee & Suburban Transport Corporation will be required to refund on weekly passes, in accordance with its stipulation, any difference between the emergency price and the price of such pass fixed by the commission's final order in this proceeding.

4. That jurisdiction be and hereby is retained to enter such further order or orders herein as the commission may deem warranted.

WISCONSIN PUBLIC SERVICE COMMISSION

Re Milwaukee & Suburban Transport Corporation

2-SR-2740, MC-1496
June 3, 1954

APPLICATION *by city for rehearing with respect to interim rate increase granted transit company on emergency basis, and request that commission direct company to make adults' and children's tickets available; rehearing denied and request approved. For earlier decision, see ante, p. 122.*

Procedure, § 32 — Rehearing — Interim rate increase — Transit company.

1. A city should be denied a request for rehearing with respect to an interim order granting a rate increase to a transit company on an emergency basis, p. 125.

Service, § 417 — Transit company — Tickets.

2. An interim order granting a transit company an emergency rate increase should be amended to require the company to make adults' and children's tickets available on all vehicles operated in common carrier service, p. 125.

By the COMMISSION: On May 13, 1954, ante, p. 122, an interim order was issued in the above proceeding granting authority to increase rates on an emergency basis with refund provisions and a retention of jurisdiction in the proceeding.

On May 18, 1954, the city of Milwaukee filed application for rehearing. In said application it also requested inter alia that the commission direct the company to provide that tickets for adults and children be made available on all of its vehicles.

Objection to rehearing was filed by the Milwaukee & Suburban Transport Corporation on May 26, 1954.

On June 2, 1954, the city of Milwaukee filed a statement of its views with respect to the objection filed by the

Milwaukee & Suburban Transport Corporation.

[1] The order issued May 13, 1954, *supra,* is an interim order granting an increase in rates on an emergency basis with refund provisions. It contemplates a subsequent order which will fix a final rate and which will be the final or terminal order in this docket. For reasons stated in the order denying reopening and rehearing in City of Milwaukee v. Milwaukee Gas Light Co. (1952) 37 Wis PSC 46, 92 PUR NS 133, it is concluded that the application for rehearing filed in the instant docket on May 18, 1954, with respect to the interim order of May 13, 1954, *supra,* is not proper under nor required by § 196.405, Statutes.

[2] The commission finds that the request of the city of Milwaukee which would require the company to make adults' and children's tickets available on all of its vehicles is required for the furnishing of reasonably adequate service to the public.

ORDER

The commission therefore *Orders*:

1. That the aforesaid application for rehearing of its interim order of May 13, 1954, ante, p. 122, is not proper nor required by § 196.405, Statutes.

2. That its interim order of May 13, 1954, *supra,* in the above-captioned dockets be and the same is hereby amended so as to provide that the Milwaukee & Suburban Transport Corporation have tickets for adults and children available on all of its vehicles operated in common carrier service. This amendment shall be effective June 14, 1954 at 5 A.M.

3. That the interim order of May 13, 1954, *supra,* be unchanged in all other respects.

CIVIL AERONAUTICS BOARD

Re American Airlines, Inc.

Docket No. 6125, Order No. E-8370
May 26, 1954

APPLICATION *by airline for permission to serve certain city through another city's airport; denied.*

Service, § 317.1 — Air carrier — Airports.

1. Both existing service in a city and the city's need for service are pertinent subjects of inquiry in determining whether an airline's proposal to serve a certain city through another city's airport is adverse to the public interest, p. 126.

Certificates, § 88 — Air carriers — Public interest — Proposed an existing service.

2. In passing upon an airline's proposal to change existing service to a certain point, the Civil Aeronautics Board may properly consider not only the effect of the proposed service on the public interest, but also whether such service is more or less beneficial than the existing service, p. 127.

Service, § 317.1 — Airline — Airport — Public interest.

3. An airline should not be allowed to serve a certain city through another city's airport where such service is adverse to the public interest, p. 128.

(GURNEY, Chairman, dissents.)

APPEARANCES: Alfred V. J. Prather and Howard C. Westwood, for American Airlines, Inc.; Clarence W. Greenwald, for the city of Niagara Falls.

By the BOARD: This proceeding involves an application filed May 11, 1953, by American Airlines, Inc. (American), for permission to serve Niagara Falls, N. Y., through use of the Buffalo municipal airport. American's Niagara Falls service is currently rendered through the Niagara Falls airport. After public hearing, examiner F. Merritt Ruhlen issued an initial decision in which he found that American's proposal to serve Niagara Falls through the Buffalo airport is adverse to the public interest and should be denied. Exceptions and briefs to the board have been filed by American and by the city of Niagara Falls. The city concurs in the result reached by the examiner, but excepts to matters subsidiary thereto. The board has heard oral argument, and the case now stands submitted for decision.

Upon consideration of the record, we adopt, except as modified herein, the findings, conclusions, and recommendations of the examiner in his initial decision, which is attached hereto as an appendix. [Omitted herein.]

[1] American excepts to the examiner's statements (a) that American's past and present service to the city of Niagara Falls through the Niagara

Falls airport has been and is inadequate or inferior, and (b) that if American is to continue serving the city through the Niagara Falls airport at all—as he found it should—such service should include several flights spread throughout the day, including direct service both ways to New York. American contends, inter alia, that these statements are irrelevant to the issues herein.

It is true that the questions of imposing sanctions for inadequate service or of prescribing additional service are not before us in the present proceeding. But it does not follow that the examiner's statements are irrelevant to the issues involved in this case. In determining whether American's proposal would be adverse to the public interest, both the city's existing service and the city's needs for service are pertinent subjects of inquiry. It is clear that the examiner's statements dealt with these matters, and we agree with his views in this regard. If, after our decision herein, American does not change its service, the city of Niagara Falls may raise the question of compelling additional service in a new proceeding based on its legal right to receive "adequate service" under § 404 of the act.

[2] American also excepts to the examiner's consideration of its proposal in terms of the comparative convenience of the proposed service and the existing service. American contends that the sole question herein is whether the proposed service itself is adverse to the public interest, not whether it is more or less beneficial than the existing service. But where the board is called upon to weigh the effect on the public interest of a proposal involving a change in the existing service to a point, it would seem obviously appropriate to consider the comparative effects upon the public of the existing and the proposed services. Indeed, it is difficult to see how proposed changes could be evaluated without regard to prevailing circumstances. Moreover, the examiner did not look solely to comparative convenience for Niagara Falls traffic in reaching his conclusion. He noted, for instance, the absence of any claim by American that granting its application would produce substantial savings or economic benefit to itself. He pointed out that no question was raised as to the adequacy of both airports for safe, dependable service. He found that American's proposal would benefit through traffic by expediting service, but he also found that such benefit would be the only aspect of American's proposal in the public interest, and that this benefit to through traffic would be minor in comparison to the adverse effect on existing and potential Niagara Falls traffic by reason of the inconvenience, added expense, delay, and deterrence from using air transportation which he described. We think the examiner correctly identified the elements of the public interest involved herein, and that the record amply supports his evaluation of them.

American excepts to the examiner's finding that a substantial portion of the available air passengers in the Niagara Falls area would use more accessible service at the Niagara Falls airport, rather than that at the Buffalo airport.[1] The finding that a substan-

[1] American also excepts to the examiner's finding that the total available area passengers are at least 48,000 on and off a year, of whom

tial part of the available passengers would use service at the Niagara Falls airport assumes that more than token service will be available at this airport. On this basis, the finding is fully justified because of the inconvenience, expense, and delay which many Niagara Falls passengers could avoid by use of a more accessible airport.

American excepts to the examiner's statement that Niagara Falls passengers must make a ground trip of 26 miles to reach the Buffalo airport. American points to evidence of three routes to that airport of 25.2, 24.5 and 23.7 miles. This evidence shows that such distances are measured from the Niagara hotel, while the examiner's statement does not include a reference to the precise point in the city involved. In any event, the disparity is clearly insufficient to undermine the examiner's detailed findings of the much greater inconvenience, expense, and time involved in ground travel when Niagara Falls passengers use the Buffalo airport instead of their own.

[3] The city of Niagara Falls has filed exceptions which in substance reflect its position that the examiner was unduly conservative in estimating the area's potential traffic and air service needs, and in stating the shortcomings of the existing local airport service and the detriments involved in using service at the Buffalo airport. We need not pass upon the adjustments which the city would have us make in the respects indicated since such adjustments, if found warranted, would merely offer cumulative support for our decision herein.

We have considered the remaining exceptions of the parties and find them without merit.

Accordingly, in view of all the foregoing and upon consideration of the entire record, we find that the proposal of American to serve the city of Niagara Falls through the Buffalo airport is adverse to the public interest and that the application of American herein should be denied.

An appropriate order will be entered.

Denny, vice chairman, Lee and Adams, members of the board, concurred in the above opinion. Gurney, chairman, dissented. Ryan, member, did not take part in the decision.

Order

A full public hearing having been held in the above-entitled proceeding and the board, upon consideration of the record, having issued its opinion containing its findings, conclusions, and decision, which is attached hereto and made a part hereof;

It is *ordered* that the application herein of American Airlines, Inc. to serve Niagara Falls, New York, through the Buffalo municipal airport be and it hereby is denied.

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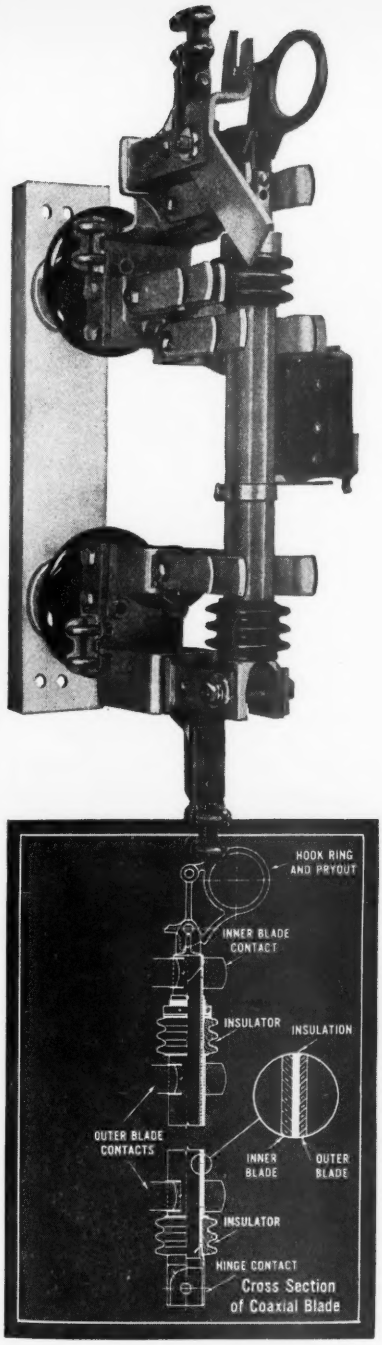
about one-third would travel to and from New York. The record amply supports this finding.



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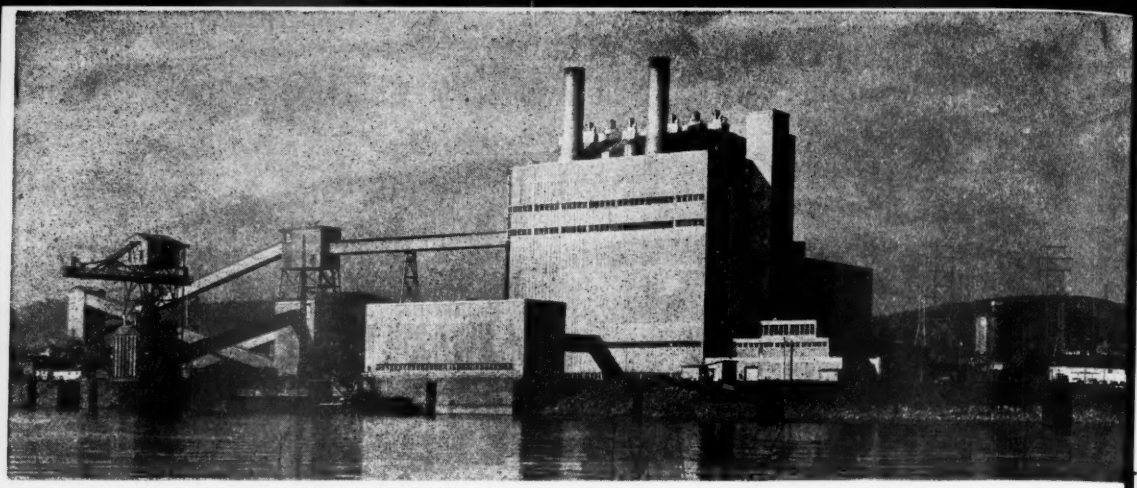

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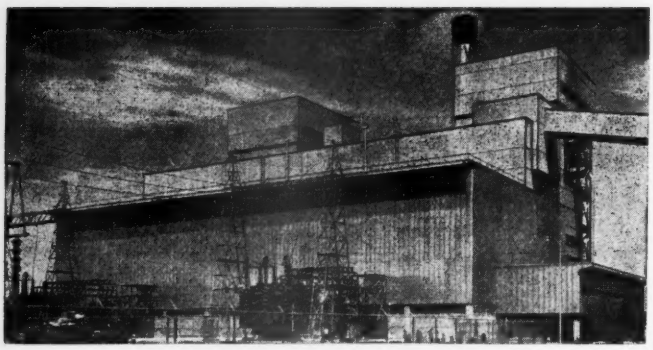

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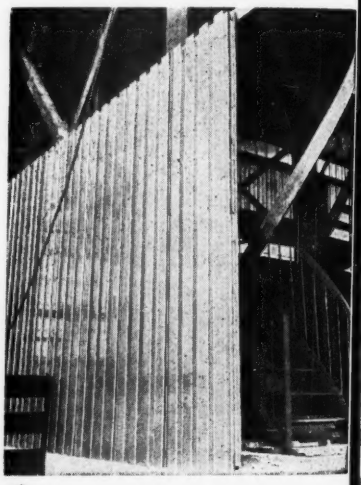

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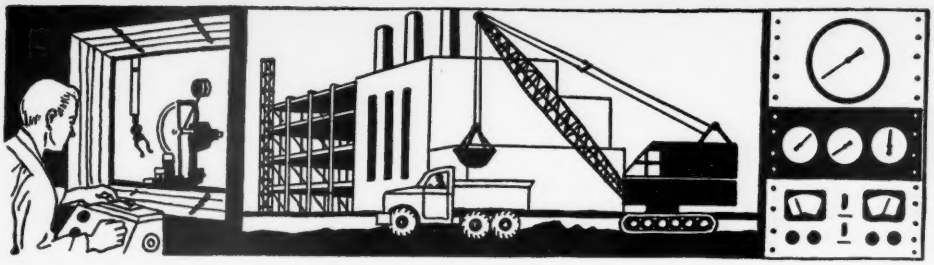

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Gas Industry Issues 1955 Sales Promotion Plans

HE second edition of the American s Association's annual "year-ead" Promotion and Advertising an Book was issued to Association mbers recently.

Off to an earlier start than ever fore, the new plan book features the ning, themes, preliminary formats d advertising tie-ins of the sales omotional and advertising programs recast by AGA for 1955, according to Wister Ligon, chairman of AGA's General Promotional Planning Committee. This "year-ahead" planning is specifically designed to place in the hands of gas utility companies and gas appliance manufacturers full information and details of AGA's sales promotional planning well in advance of the actual campaign dates. This facilitates more effective tie-ins with such campaigns at the local level, helps effect maximum coördination of all industry efforts, Mr. Ligon said.

The success of the AGA long-range promotion planning program is evidenced by the growing number of gas utilities and appliance manufacturers who participate in it, according to Mr. Ligon.

National Carbon Announces New Cathodic Protection Booklet

A NEW booklet covering the "whys" and "hows" of cathodic protection is announced by National Carbon Company, a Division of Union Carbide and Carbon Corporation.

The catalog is said to be a complete reference work on the mitigation of corrosion of underground and submerged metal structures by the application of an impressed current cathodic protection system using "National" graphite anodes.

Slanted toward both the management executive and the engineer, the booklet contains valuable information on the cost of corrosion; the economics of cathodic protection; where and when it can and should be applied; facts about impressed current systems and how they should be installed; typical ground bed installation details including design notes and tabulation of material requirements. It also contains engineering sketches and aids, and typical curves showing ground bed to structure resistance.

Copies of this new booklet, Catalog Section S-6500, may be obtained by writing National Carbon Company, a Division of Union Carbide and Carbon Corporation, 30 East 42nd street, New York 17, New York.

Arkansas Pwr. & Lt. Conducting $25,748,000 Program

THE Arkansas Power & Light Company expects to spend $25,748,000 on expansion in 1954, with $17,130,000 expended by July 31st.

Largest items in the expansion program are the new generating units nearing completion at both Cecil Lynch power plant near Little Rock, and Harvey Couch plant near Stamps. Completion of these additions increases AP&L's power supply by 270,000 kilowatts—more than three times the electricity required by the Greater Little Rock area.

Commonwealth Edison Completes Fourth Unit At Ridegland Station

WHAT is said to be the greatest power plant in the middle west, and one of the largest and most efficient in the country, was completed recently when a fourth big generating unit was put in commercial operation at Commonwealth Edison's Company's Ridgeland station.

Willis Gale, Commonwealth chairman, announced that the 150,000-kilowatt turbine generator was approved for service following several weeks of test operation. The electric generating unit was made by Allis-Chalmers company at Milwaukee.

The nameplate capacity of the station is now 600,000 kilowatts, the equivalent of more than 800,000 horsepower. The station consumes an average of 6,000 tons of coal (or equivalent) a day and its output of electricity is enough to serve a city of more than a million population. The

(*Continued on page* 28)

machine-digging in

City Congestion Above and Below Ground

THE MINNEAPOLIS GAS COMPANY recently installed gas mains in such major downtown thoroughfares as Fifth St., Sixth St., Nicollet Ave., and Second Ave. S., in connection with one of the city's biggest repaving programs in years. Shown here are crews of Minnesota Williams Company putting in one of these lines under Fifth St. between Nicollet and Hennepin Aves.

The compactness of the CLEVELAND Trencher and its maximum operator visibility and control—inherent in all CLEVELANDS—made machine-digging practical on this job despite traffic problems and numerous underground obstructions. Advantages like these, enabling CLEVELAND owners to dig *more trench, in more places at less cost,* have earned outstanding preference for CLEVELANDS—among contractors, utilities and municipalities, alike.

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INDUSTRIAL PROGRESS (*Continued*)

plant, with its connecting transmi sion facilities, cost in excess of $10 000,000.

Ridgeland is the largest single pro ect in Commonwealth's eleven-yea one-billion-dollar construction pr gram, which was started at the end World War II. From 1946 to date t system has added 1,134,000 kilowat of generating capacity and present has under construction 491,000 kil watts. When the present program completed Commonwealth's capaci will be 3,913,000 kilowatts, an increa of 71 per cent over 1945.

Northern Indiana Public Serv Plans New Power Plant

NORTHERN Indiana Public Servi Company will start work in the f on a $20,000,000 steam-operated el tric power plant at Gary, Ind.

The first generating unit to be stalled will have a capacity of 137,5 kilowatts, bringing the utility's to to more than 650,000. The powerhou is designed to hold five additional ge erators.

The project will take four years complete.

Delta-Star Electric Announce $250,000 Expansion Program

A QUARTER of a million dollars e pansion of local plant facilities Delta-Star Electric Division, H. Porter Company, Inc. of Pittsburg has been announced by C. S. Beatt vice president and general manag The expansion program includes l 000 square feet of additional sembly floor space, the modernizati of structural steel fabricating pl and the installation of new automa fabricating equipment.

The new facilities will increa plant efficiency and provide bet service to Delta-Star's customers.

This is the third expansion progr Delta-Star has had during the p two years, modernizing both manuf turing and office facilities. De Star's plant now covers approxima ly 175,000 square feet and empl over 700 people in its operation.

Network Analyzer Installed At Syracuse University

A LARGE capacity network analyz built by the General Electric Compa at its switchgear plant in Philadelph Pa., has been installed at Syrac University.

The analyzer, an instrument signed for use in the accurate

(*Continued on page* 30)

More jobs per day

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convenient study of power transmission and distribution system problems, was installed at the university's College of Engineering through the coöperation of Niagara Mohawk Power Corporation, New York State Electric and Gas Corporation, and General Electric.

Principal users of the analyzer will be the three companies, who have scheduled the machine for 39 weeks of the year. Other interested companies may contract for time with the university during the remaining 13 weeks.

The analyzer program at the university, in addition to its primary objective of rendering service to electric utilities, is designed to stimulate and facilitate educational and creative activity within the university in the power field.

Southern Indiana Gas and Electric Continues Expansion

SOUTHERN Indiana Gas and Electric Company reports that the first 40,000 kilowatt unit of the company's new steam-electric generating plant on the Ohio River near Evansville will go into service early next year.

The company also reports that work continues on the development of the underground gas storage project in the Oliver gas field west of Evansville, for the purpose of storing and providing a larger gas supply for use in winter months to meet heating needs.

It is expected the company will be supplying approximately 5000 more heating customers this winter than were served a year ago.

Philadelphia Electric to Build "World's Greatest Power Plant"

"THE world's largest steam turbine generator unit will be installed in the world's most efficient power generating station," which will be built by Philadelphia Electric, according to an announcement by R. G. Rincliffe, president. Work on equipment for the new station will begin at once.

The new 275,000-kilowatt unit wi operate at the heretofore-unheard o steam pressure of 5000 pounds pe square inch, the highest pressure eve used in an industrial boiler, and wi increase the supply of electricity in th company's area by more than 10 pe cent. It will represent an initial in vestment of some $45,000,000.

The new 5000-lb. pressure stea turbine generator, which will operat at 3600 revolutions per minute, will b built by the Westinghouse Electri Corporation at its South Philadelphi and East Pittsburgh Works.

The steam boiler, which will be bui by Combustion Engineering, Inc., wi supply steam to the turbine at th highest steam pressure and tempera ture ever used.

If this new unit were used to pro duce current for home use only, it would be large enough to supply th electrical needs of more than 3,000 000 people.

The steam generator incorporate for the first time in this country, th mono-tube principle of the inter nationally-known Swiss Sulzer Com pany, for which Combustion Engi neering holds American rights. Th boiler will be equivalent in size to 14-story building 100 feet wide by 7 feet deep. It will contain more tha 150 miles of tubing.

The company is studying sever locations for this great project to de termine the best place to construct th station.

Blaw-Knox Expands Power Pipin And Sprinkler Facilities

BLAW-KNOX Company recent celebrated the opening of its newly expanded facilities of its Power Pip ing & Sprinkler Division amidst pre dictions of further growth in this fiel

Begun more than a year ago, th project involved the addition of tw new production bays totaling 13,00 square feet. One of these bays hous the streamlined facilities for the ma ufacture of spring hangers and vibra tion eliminators.

The new plant facilities also provi for expanded machining operation and for better work flow on pipe fabri cation contracts.

New office quarters built above th plant addition enable Power Piping Sprinkler for the first time to uni administrative, headquarters sale clerical, and engineering personnel o both the Piping and Sprinkler Depar ments into a central headquarters.

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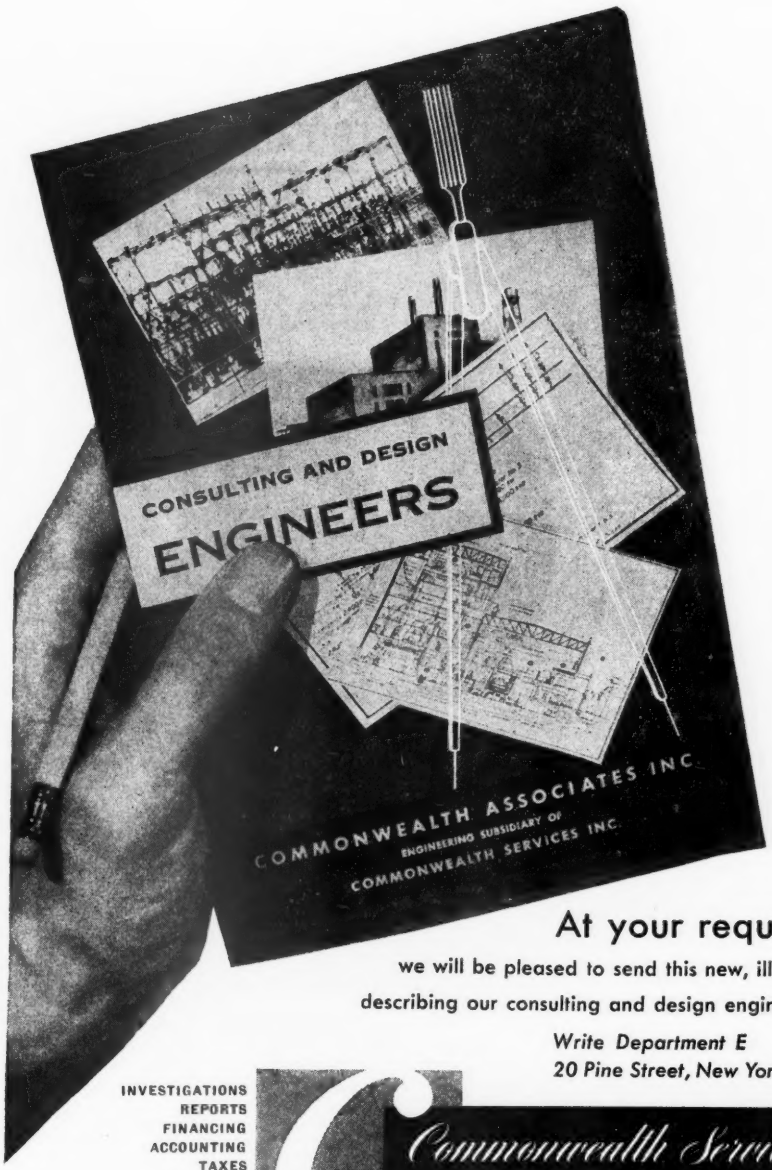

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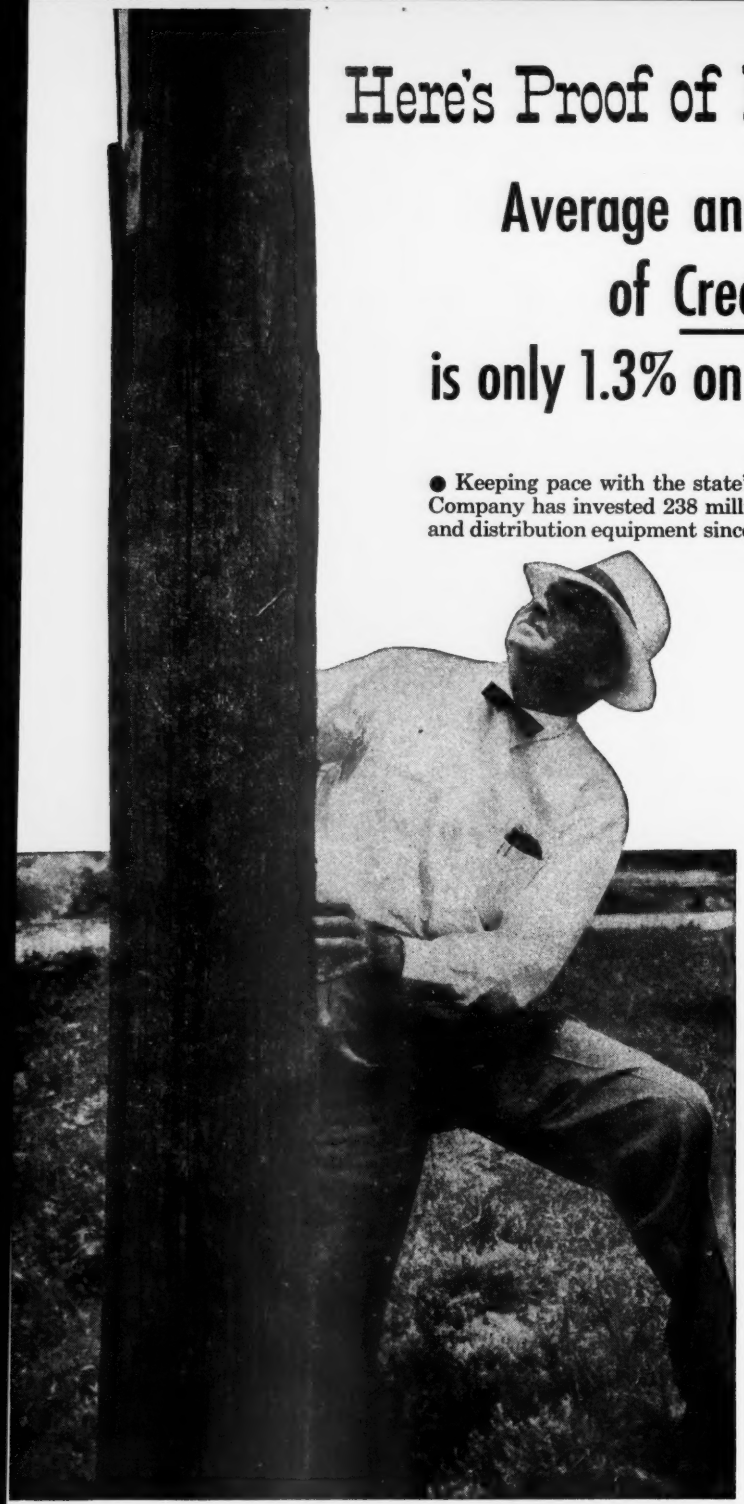

● Keeping pace with the state's industrial expansion, the Georgia Power Company has invested 238 million dollars in new generating, transmission and distribution equipment since the end of World War II. The tremendous output of this expanded system is distributed to users on pressure-creosoted poles.

A. C. Henderson, supervisor of transmission lines, explains, "We have tried other types of poles in the past, but we always go back to pressure-creosoted southern yellow pine."

Experience has proved pressure-creosoted poles held replacements to a minimum. A 44,000-volt line near Atlanta has been in service since 1916. There are 1,159 poles in the line, and since present record-keeping methods were begun in 1942, only 166 poles have been replaced. That's an average annual rate of 1.3% on a line now 38 years old.

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C. C. WHITE is inspecting one of the 38-year-old pressure-creosoted poles in the 31.6 mile line of the Georgia Power Company, between Norcross and Porterdale.

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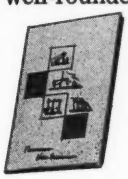

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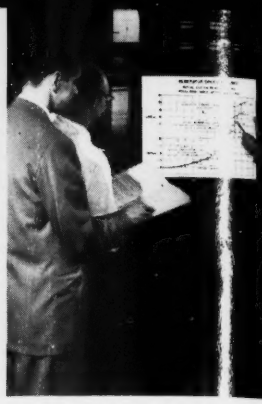

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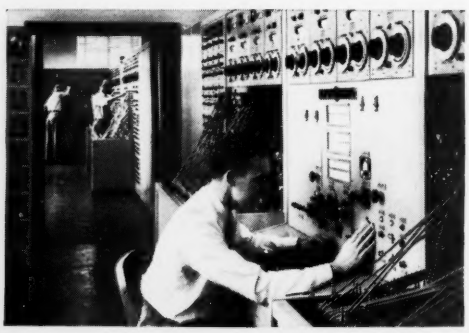

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